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NORTHUMBERLAND COUNTY COUNCIL



ANNUAL REPORT

OF

THE COUNTY

MEDICAL OFFICER

OF HEALTH

FOR THE YEAR

1946

JOHN B. TILLEY, M.D., B.Hy., D.P.H., *County Medical Officer.*



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STAFF OF THE HEALTH DEPARTMENT.

—::O::—

County Medical Officer and School Medical Officer	John B. Tilley, M.D., B.Hy., D.P.H.
County Bacteriologist	....	....	....	....	....	Andrew I. Messer, M.A., M.B., Ch.B., D.P.H.
Maternity and Child Welfare Officer and Supervisor of Midwives	....	....	....	....	....	Janet M. Jamieson, M.B., Ch.B., D.P.H.
Deputy School Medical Officer	....	....	....	....	....	Wm. J. Pierce, M.B., Ch.B., D.P.H.
County Tuberculosis Officer (Clinical)	....	....	....	....	....	Francis L. Moore, M.B., Ch.B.
Assistant Tuberculosis Officer	....	....	....	....	....	John P. Parkinson, M.B., B.S.
Medical Superintendent at Wooley Sanatorium	....	....	....	....	....	Frederic L. Wollaston, M.R.C.S., L.R.C.P.
Thoracic Surgeon	....	....	....	....	....	George A. Mason, M.B., B.S., F.R.C.S.
Assistant County Medical Officer	....	....	....	....	....	Eliz. M. R. Clarke, M.B., Ch.B., D.P.H. (Resigned 15th January, 1946)
Assistant County Medical Officer	....	....	....	....	....	Cyril Bainbridge, O.B.E., M.B., B.S., B.Hy., D.P.H. (Commenced 1st February, 1946)
Assistant County Medical Officer (Child Welfare)	....	....	....	....	....	Margaret F. Fraser, M.B., Ch.B., D.P.H.
Do.	do.	do.	....	....	....	Kathleen M. Adamson, M.B., Ch.B.
Do.	do.	do.	....	....	....	Kathleen Dick, M.B., B.S., B.Hy., D.P.H.
Assistant School Medical Officer	....	....	....	....	....	Mary W. Dewell, M.B., B.S.
Do.	do.	do.	....	....	....	Anna Reid, M.B., Ch.B., D.P.H.
Do.	do.	do.	....	....	....	Edna T. Everdell, M.B., B.S., B.Hy., D.P.H.
Do.	do.	do.	....	....	....	Douglas M. Calvert, M.B., B.S., (Resigned 31st December, 1946)
Do.	do.	do.	....	....	....	*John A. Smail, M.B., Ch.B.
Do.	do.	do.	....	....	....	†Alfred G. Newell, M.D., D.P.H.
Resident Medical Officer, Dilston Hall	....	....	....	....	....	Alexander Hart, M.D. (Vienna).
Maternity Hospital	....	....	....	....	....	Arnold E. Robinson, L.D.S.
Senior Dental Officer	....	....	....	....	....	Ann A. Graham, S.R.N., H.V. Cert., R.S.I.
Superintendent Health Visitor	....	....	....	....	....	Mary L. Thorp, A.I.H.A.
Almoner	....	....	....	....	....	James Atkinson, M.R.San.I., M.I.M. & Cy.E., M.S.I.A.
County Health Inspectors	....	....	....	....	....	Douglas Lister, Cert. S.I.B., M.S.I.A., M.R., San.I.
Supervisor of Blind Welfare	....	....	....	....	....	Eileen Metcalfe.
Chief Clerk	Mr. E. T. I'Anson. (Resigned 30th April, 1946).
Do.	G. W. Scott.

*Part time.

†Medical Officer of Health for Blyth.

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*To the Chairman and Members of the Northumberland
County Council.*

Mr. Chairman, My Lords, Ladies and Gentlemen,

I have the honour to present the Annual Report for the year ended 31st December, 1946. Reference is made to the important vital statistics relating to the administrative County as a whole and more detailed information is given of the work of the Council's Health Services.

The general vital statistics for the County were extremely satisfactory. The birth rate, which had fallen slightly in 1945, rose again to a figure which had only once been exceeded in the last twenty years. Maternal mortality showed a remarkable decline and reached the lowest level ever recorded, while the infantile mortality rate equalled the previously lowest recorded figure established in 1944. The increase in the Registrar General's estimate of the population of the area reflected the return of many of the large numbers that left the County during the war.

For the second year a slight decline in the percentage of deaths due to cancer was recorded, though there was no decrease in the total number of deaths caused by this disease. The general death rate was lower than 1945 and diseases of the heart and circulatory system remained the most important causes of death. There was a small increase in the number of deaths from tuberculosis, but the death rate from the disease remained unchanged.

The incidence of diphtheria in the County, which had showed an upward trend since 1943, fell considerably. The number of deaths from this disease was also considerably reduced. This is most satisfactory and at the time of writing it is possible to state that the decline continued in the following year.

There was a welcome decline in the notification of cases of tuberculosis, although the death rate remained unchanged. The work of the Tuberculosis Service continued to expand and a record number of x-ray examinations was carried out. The number of patients attending the dispensaries which proved to be non-tuberculous surpassed the previous year's record and this may be taken as one indication of the value of the work. The

medical staff of the Service was increased by the appointment of an Assistant Tuberculosis Officer and in the latter part of the year an Assistant Almoner was made available to the After-Care Service.

Considerable increases were recorded in the work of the Dental Services during the year and attention should be drawn to the establishment of a dental workshop for the County and the provision of x-ray facilities. The steady expansion of the work of the Maternity and Child Welfare Service continued and twelve new Centres were opened during the year. There was great pressure on the beds of the Council's Maternity Hospitals throughout the year, and it is of interest to note that just over one-third of the births registered in the County occurred in hospitals.

Full use was made of the County Laboratory and the number of examinations carried out reached a new record. The later transfer of this Laboratory to the Medical Research Council will be noted more fully in the next Report.

Though the Report is not as extensive as in the days before the war, the records of the Health Services show a steady increase in the work of the Health Department, and I would wish to thank all the members of the staff for their help in dealing with this expansion.

Finally, I would again express my thanks to the Chairman and Members of the Committees which control the work of the Department for their help and support during the year.

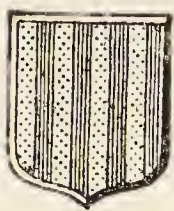
I am, My Lords, Ladies and Gentlemen,

Your obedient Servant,

JOHN B. TILLEY,

County Medical Officer.

November, 1947.



NORTHUMBERLAND COUNTY COUNCIL.

REPORT OF THE COUNTY MEDICAL OFFICER OF HEALTH FOR THE YEAR 1946.

VITAL STATISTICS.

Population.

The increase in population noted in the Annual Report for 1945 continued in 1946 and the Registrar General has given his estimate of population for the year as 412,080. As the figure for 1939 was 412,240, it appears that the reduction in numbers brought about by recruitment to H.M. Forces and by the other occasions of war has, to all intents and purposes, been made good. Such an increase is likely to continue so long as the birth rate maintains itself at its present level. The live births exceeded the deaths from all causes in the County by 3,197, as compared with an excess of 2,095 in 1945.

Birth Rate.

The decline of birth rate recorded in 1945 from the previously rising trend since 1941 was restored in 1946 by a rate of 19.74 per 1,000 population. This is not quite as high as the birth rate in 1944 which remains a record for recent years, but except for that year no comparable figure has been reached for twenty years. How far the increased number of births of recent years reflects a real change in the fertility habits of the population cannot be deduced from these figures alone. To make such a deduction would require knowledge of whether a substantial proportion of births were of third and subsequent children in already existing families, since, if they are mainly first or second children, the increase may be regarded as little more than a function of the increase of marriages in the war years.

Out of a total of 8,379 registered births, 436 were illegitimate, equivalent to a percentage of 5.2.

General Death Rate.

The death rate of 11.98, compared with 12.24 in 1945 and 12.16 in 1944, reflects a satisfactory state of affairs.

For England and Wales generally the rate was 11.5.

Infantile Mortality Rate.

The infantile mortality rate was 48 per 1,000 live births, equal to the figure for 1944, and, with it, constituting the lowest recorded number in the County. The rate in the urban districts was 49 and in the rural districts 46 per 1,000 live births.

Still Births.

The total number of registered still births was 244, equivalent to a rate per 1,000 registered births of 29.12. This is higher than last year (28.85 per 1,000 registered births) which in turn was slightly higher than the number for 1944. Though this is unfortunate, no hasty conclusions can be drawn from a trend which it is hoped may prove to be a temporary fluctuation. As with infant mortality, the rate was lower in the rural than in the urban districts, 23.84 in the former as compared with 30.49 in the latter.

Maternal Mortality.

The year 1946 broke all previous records in showing a maternal mortality of 1.31 per 1,000 births. This eclipses the previous low record of 1.83 per 1,000 births recorded for 1943 and neutralises the slight upward trend commented upon in the Annual Report for last year. Of the 11 deaths, 3 were due to puerperal sepsis and 8 to other causes. In 1936 the maternal mortality rate was 4.01 per 1,000 births and this remarkable advance in ten years is a matter for considerable satisfaction, though every effort must be made to reduce this rate still further.

Principal Causes of Mortality.

The table below follows the custom of past years in showing the chief causes of death :—

Disease.	1946.		1945.	
	No. of Deaths.	Percentage of total Deaths.	No. of Deaths.	Percentage of total Deaths.
Heart Disease	1,469	29.75	1,353	28.15
Cancer	712	14.42	725	15.10
Intra Cranial Vascular Lesions	659	13.35	632	13.15
Tuberculosis	242	4.90	233	4.84
Bronchitis	218	4.41	214	4.45
Other Diseases of Circulatory System....	135	2.73	180	3.74
Pneumonia	171	3.46	137	2.85
Nephritis	122	2.47	128	2.66
	3,728	75.49	3,602	74.94

For the second year in succession deaths from intra-cranial vascular lesions have shown both an absolute and a proportionate increase in number. Deaths due to nephritis and to cancer were both smaller in number than in 1945. With regard to the latter disease, an analysis of a large sample of cases (*i.e.* those notified by the Local Registrars without correction for inward and outward transfers) showed that out of 579 cases reviewed (292 men and 287 women) 57.5% died at 65 years and over, 40.1% between the ages of 40 and 65 and 2.4% at ages under 40. These figures show that, even though cancer be rightly considered a disease of old age, a distressingly large proportion of persons died from it during their working life and at a time when their value to their families and to the community was at its highest. Of these 579 cases, 351 suffered from cancer of various sites in the alimentary system and 126 of the stomach. Of cancer of all sites in the mouth and throat there were only 11 cases (men 8, women 3), a satisfactorily low figure. The ready access of such growths for early diagnosis and the improved dental hygiene of recent years may be presumed to render effective treatment more and actual incidence less likely. The female reproductive system accounted for 107 cases, of the breast 45 and of the uterus 47. Here are sites where opportunities for early diagnosis and

treatment should give a good expectation of life in established cases. Of sites where a considerable recent increase has been recorded, the lungs and the prostate, 43 cases or 7.4% were recorded of deaths due to the former and 21 cases or 3.6% to the latter. As generally found, primary cancer of the lung, or more correctly bronchogenic cancer, was commoner among men, male patients accounting for 36 of the total instances.

Among the younger people under 40 who died from cancer, the alimentary system again accounted for the majority of sites, 8 out of 14. Among them were two patients diagnosed as suffering from sarcoma, a type of malignant neoplasm occurring at any age, though rarely as compared with carcinoma. This latter and commoner form of the disease accounted for the deaths of the other 12 younger people.

Infectious Diseases.

There is nothing outstanding for comment in the incidence of infectious diseases during 1946. Scarlet fever, diphtheria and measles all showed a decline on the numbers notified in 1945. Whooping cough, on the other hand, had a greater incidence and 10 deaths were registered as due to it as compared with 6 in the previous year.

Of the commoner infectious diseases, diphtheria still remained the greatest cause of fatality, though the number of deaths attributed to it compared favourably with previous years and showed a decline in trend as did the incidence of cases. There were 14 deaths from this disease compared with 22 in the previous year. The case mortality was 2.55% compared with 2.5% in 1945.

The small number of cases of enteric fever notified year by year shows that there remain among the population sources of infection, mostly unknown, that under circumstances favourable to it might lead to a widespread outbreak. Thus precautions in the safeguarding of water and milk supplies and of all manipulated foodstuffs need constant attention, nor should efforts be relaxed to improve the standard of personal hygiene of the population in general.

Detailed figures are given in Tables 4 and 4a.

DIPHTHERIA IMMUNISATION.

There are no changes to record in the administration of the County Scheme for Diphtheria Immunisation in 1946. Additional temporary health visitors continued to be employed as and where necessary.

In the County Districts 5,255 pre-school children were protected and 1,425 children aged 5—14 years. In addition to these courses of inoculation, 4,225 secondary or 'booster' doses were given to already immunised children who, after some four years since the initial course, were regarded, in accordance with modern teaching, as needing reinforcement to their artificially acquired immunity.

The grand total of children under 15 years of age living in the County who had been immunised at any time before 31st December, 1946, was calculated as 68,776. This is, of course, an estimate which cannot be exact but is likely to be reasonably correct and which shows that, out of an estimated child population at mid-1946 of 90,790, 75.75% had been immunised.

A review of the detailed figures of immunisation carried out in the various County Districts shows on the whole a gratifying response. Some of the Rural Districts give highly satisfactory percentages of children immunised, a matter worthy of commendation to all concerned in view of the scattered population. Such figures show that the idea of immunisation has become accepted by the majority of the population and thus repay the thought and care lavished on publicity during recent years.

A study of incidence of diphtheria over past years shows an undoubted real decline in the prevalence of the disease and, as this coincides with the widespread adoption of artificial immunisation, a significant inter-relation between them may be assumed. At the same time, it must be realised that there are phenomena connected with the epidemiology of infectious diseases that are not fully understood, and that modifications in the severity of disease may occur for no known reason. An example of this is readily to be seen in the mildness to-day of scarlet fever as compared with this type of illness in the nineteenth century. Thus, while we may legitimately congratulate ourselves upon the beneficial results of immunisation, we cannot yet claim that they have with certainty brought about the end we intended.

ROAD SAFETY.

Among the preventable causes of morbidity and mortality are injury and death from road accidents. As is well known, for many years, considerable efforts have been made to minimise these items by instruction in the schools on road sense and by endeavours to improve the standard of driving and behaviour of road users. The following statistics have been kindly provided by the Chief Constable of the County :—

Road accidents involving personal injury.

	<i>Fatal</i>	<i>Serious</i>	<i>Slight</i>	<i>Total</i>
1946 —	42	335	724	1,101

Figures for the previous year are not available, and a comparison cannot be made, nor, in view of war conditions prevailing during the first half of 1945, would it be strictly relevant. That 42 persons should have been killed and 1,059 injured to varying degrees in one County during one year is indeed tragic, and every possible line of action to reduce this killing and maiming on the roads must be followed with the greatest intensity.

HOSPITAL TREATMENT.

Pending an increase in general hospital accommodation in the County, which was not met by any new building programme during the year, the arrangements between the County Council and the Newcastle City Council continued as hitherto. The number of County patients treated in the City Hospitals was 455 which again shows an increase on the 393 patients admitted for treatment in 1945. This may be compared with the 63 patients admitted to these Hospitals in 1940. The patients were distributed between the Newcastle General Hospital and the Emergency Hospital at Shotley Bridge.

Hexham Emergency Hospital.

The total admissions during the year were 2,401, (611 service and 1,790 civilian). Of these between 800 and 1,000 were County patients.

The Medical Superintendent reports that the year showed considerable progress in the change-over from war conditions and that, subject to beds being available, there is now provided a complete general hospital service for the western part of Northumberland.

The average number of beds occupied at a time was 322, which is a lower figure than last year (380), but is accounted for, however, by a shorter average time of stay in the hospital, so that the actual number of admissions was in fact greater than in 1945.

A Domestic Supervisor was appointed during the year and difficulties in securing and retaining domestic staff seemed to be less than in some other hospitals, for which credit is no doubt due to her.

A Canteen was established for outdoor staff and for patients.

Another important appointment during the year was that of a Lady Almoner.

The Service P.T. Instructors were withdrawn and replaced by two ex-Service Remedial Gymnasts.

With regard to the general administration of the Hospital, there are no changes to report compared with earlier years.

TREATMENT OF CANCER

The Organisation set up by the North of England Joint Cancer Committee under the Directorship of Mr. C. J. L. Thurgar, F.R.C.S.(Eng.) continued to operate as in the previous two years. The Medical Advisory Committee continued to meet at regular intervals and to make recommendations to the Cancer Committee.

Among difficulties encountered during the year and emphasized by the Director was lack of medical and nursing staff. Both a Deputy Director and additional radio-therapists were required to provide adequate treatment for the number of patients in need of it. The Director stated that, in fact, only half of the total number of such patients in the Region were able to receive treatment at present. The response to advertisements for this additional medical staff was disappointing and a Deputy Director was not appointed during 1946. The question was raised as to whether it was possible to train radio-therapists locally, but again the lack of senior staff prevented the realisation of this scheme.

Another difficulty was that of accommodation, with which was included the relative inaccessibility of Shotley Bridge Emergency Hospital. The occasional impassibility of the roads to this Hospital in winter was regarded as a markedly adverse factor.

During the year the recognition of the temporary Associated Hospitals first given in 1945 was renewed for a further year.

The National Radium Commission visited the Region in May and the Commissioners made an inspection of the work of the Organisation.

With regard to the County of Northumberland, 92 male and 95 female patients, total 187, received treatment under the scheme in 1946. This may be compared with the total of 557 persons who died from cancer in the County during the same period, all of whom may be regarded as potential subjects for treatment through the Cancer Organisation. It will, of course, be realised that a certain number of patients are only diagnosed when the disease has reached a stage when effective treatment is impossible, and it should be one of the aims of health education to encourage persons with suspicious symptoms to seek early advice. The widespread feeling that the diagnosis of cancer is equivalent to a death sentence undoubtedly accounts for a tendency to conceal suspicious symptoms.

PUBLIC ASSISTANCE.

The Public Assistance Medical Service was satisfactorily maintained during 1946 and there were no major changes, though the extension of the panel system, which enables a free choice of doctor to be available, continued to include seven additional areas of the County. Further extension was under consideration at the end of the year when the scheme was operated in 17 districts in all, served by 66 practitioners.

The medical relief districts where medical officers were paid annual salaries under contract without additional remuneration were reduced from 37 as reported in 1945 to 28, served by 22 medical practitioners.

TUBERCULOSIS SERVICE.

There was a slight actual rise in the number of deaths from Tuberculosis—the total was 242 compared with 233 in 1945, but the death rate remained stationary at 0.59 per 1,000 as in 1945. There was an increase of 14 Pulmonary deaths and a decrease of 5 non-Pulmonary deaths. The increase of Pulmonary deaths occurred in the male sex and was spread between the 15—45 and 45—65 age groups.

The death rates show a steady decline since 1940 except for the marked fall in 1942 and have remained stable during the past two years. They are set out below :—

<i>Year.</i>	<i>Deaths.</i>	<i>Rate to 1,000 population</i>
1940	284	0.69
1941	259	0.63
1942	192	0.48
1943	252	0.64
1944	238	0.61
1945	233	0.59
1946	242	0.59

There has been a steady decline in the death rate from Tuberculosis since the beginning of the century and apart from a rise during the 1914-18 War, it will be noted that there was a marked decline over the quinquennia ending 1920 and 1925 and it will be of interest to see if there is a similar fall following 1939-45 War. This improvement can be studied in the accompanying table :—

<i>Year.</i>	<i>Deaths.</i>	<i>Rate per 1,000 population.</i>
1900	781	2.00
1905	583	1.73
1910	580	1.53
1915	573	1.57
1920	507	1.29
1925	447	1.08
1930	410	1.00
1935	295	0.72
1940	284	0.69
1945	233	0.59
1946	242	0.59

The death rate from Pulmonary Tuberculosis is 0.49 per 1,000 as compared with 0.47 per 1,000 in 1945 and the present trend of mortality is shown in Table at the end of the Report.

The County death rate from all forms of tuberculosis was 0.59, slightly higher than the death rate for England and Wales which is 0.54 for 1946.

From 1940 to 1944 there had been a slight but steady rise in the number of notifications of Non-Pulmonary Tuberculosis. In 1945 there was a slight fall in notifications and this year this decline has been maintained—in 1946 the Non-Pulmonary notifications numbered 116.

In addition to this decline it is gratifying to note that Pulmonary notifications have also shown a marked decline to 454 a decrease of 154 cases on the 1945 figures. This decline has been equally spread between males and females and has occurred almost entirely in the 15—45 age group.

The total notifications show a decline of 165 cases, the figures for each year since 1938 are shown thus :—

<i>Year.</i>	<i>Respiratory.</i>	<i>Non-Respiratory.</i>	<i>Total Notifications</i>
1938	347	190	537
1939	288	130	418
1940	343	111	454
1941	346	116	462
1942	298	116	414
1943	458	125	583
1944	506	134	640
1945	608	127	735
1946	454	116	570

It is difficult to attribute any one cause to account for the decline in notifications in 1946. It may well be that the effect of the removal of war time strains and anxieties may in some measure account for the decline. Also in 1945, the Mass Miniature Radiological Unit was engaged in the Wallsend survey and this may well have swollen the 1945 figures. It is felt that until a complete survey of the County area is undertaken by the Mass Miniature Radiological Unit we may well not have a true picture of the extent of Pulmonary Tuberculosis in its incipient stages and that as these surveys take place fluctuation of notification rate may well be anticipated.

Dispensary Service.

In August the medical staff of the Dispensaries was augmented by the appointment of Dr. J. P. Parkinson as an Assistant Tuberculosis Officer.

The number of new cases excluding contacts seen at the Dispensaries was 1603, a decrease of 73. Of these new patients 266 were found to be Tuberculous as compared with 380 in 1945 a decline of 114 definite cases. The number of non-tuberculous patients seeking advice shows an actual relative increase. This extended use of the dispensary services for the exclusion of this disease and establishing a correct diagnosis is to be commended.

It will be noted that out of the 570 total notifications 266 definite cases were seen at the Dispensaries, 23 contacts were found to be Tuberculous and 124 were transfer cases, etc., a total of 413 cases, that is to say, that of the 570 cases taken on to the notification register 413 were seen at the Dispensaries *i.e.* 73%. Of the remaining 27% some were cases in Mental Hospitals, some declined Dispensary supervision and some were after death notifications.

A comparison of the work of the Dispensaries with the last complete year before the war is shown below :—

	1946	1945	1944	1943	1938
<i>New Cases.</i>					
Definitely Tuberculous	266	380	384	329	274
Diagnosis not completed	105	94	120	99	56
Non-Tuberculous	1232	1202	1165	913	510
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	1,603	1,676	1,669	1,341	840
<i>Contacts.</i>					
Definitely Tuberculous	23	33	40	37	28
Diagnosis not completed	42	14	40	26	14
Non-Tuberculous	403	373	403	383	291
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	468	420	483	446	333
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Number of sputum examinations	1225	968	967	683	637
„ X-ray „	3,648	3174	3,084	2,199	1,076
„ T.B. plus cases on Dispensary Register Dec., 31st	..... 514	497	456	445	458

Examination by X-ray reached the record total of 3,648, these examinations were carried out at the following centres :—

Newcastle (Dr. Dickinson)	.....	.....	1,186
Wallsend—Sir G. B. Hunter Memorial Hospital	.....	.....	1,800
Hexham—War Memorial Hospital	.....	.....	429
Alnwick—Alnwick Infirmary	.....	.....	29
Berwick—Berwick Infirmary	.....	.....	5
Blyth—Blyth Knight Memorial Hospital	.....	.....	54
Stannington—Stannington Sanatorium			145

Refills for Artificial Pneumothorax cases were carried out at Hexham, Newcastle, Wallsend, Ashington, Berwick, Alnwick and Blyth, a total of 2,085 being performed.

In the past Artificial Pneumothorax cases were required to come into Newcastle for their refills, but it has now become possible to provide facilities for refills in all dispensary areas and so implement the policy of bringing the service to the patient.

There were 1531 definite cases of Tuberculosis on the Dispensary Registers at the end of the year, a decrease of 26 on the previous year.

Wooley Sanatorium.

The report on the work carried out at Wooley is detailed in the following paragraphs furnished by Dr. Wollaston, Medical Superintendent, Wooley Sanatorium. This report shows how much valuable work is being performed in this Sanatorium despite all the difficulties that have been experienced in staffing.

STAFF : At the beginning of the year the Sanatorium was grossly understaffed and, on account of the shortage of nurses, one men's ward and one women's ward remained closed numbering a total of 72 beds.

Early in the New Year male nursing orderlies were engaged on the men's wards and this enabled us to re-open the women's ward by transferring all the female nurses to this section and staffing the men's wards entirely with male nurses under the charge of a nursing sister. We still have not been able to open the closed men's ward as this has had to be used to accommodate male staff pending the erection of a Hostel.

It is hoped that the recent appointment of a Sister Tutor will encourage nurses to work out here and to stay to complete their Tuberculosis training.

Improvement of the accommodation in the Nurses Home is under way, and every effort is made to provide recreation facilities for the staff. Transport to Hexham is available four nights a week, and a staff social club has been formed.

The domestic situation was difficult but improved somewhat towards the end of the year, and the domestic staff was augmented by engaging male orderlies.

PATIENTS : 217 patients were admitted during the year. Of the 180 patients discharged, 14 left sanatorium prematurely, 81 were classified quiescent ; 74 were treated by collapse therapy ; 142 were T.B. negative. 109 operations were performed either at Hexham or Shotley Bridge.

The number of admissions was less than 1945 and appreciably less than 1944. The advance in collapse therapy is shown by the number of operations which increased from 68 to the record figure of 109.

ENTERTAINMENTS : We were fortunate in obtaining additional entertainments for the patients during the year. Many amateur companies came out to give shows. The Red Cross gave a donation towards the provision of a talkie cinema projector with which a weekly show was given since September. A microphone and amplifier system was installed for the broadcast of entertainments and talks to bed patients.

The Patients Social Union was reconstituted with stress on its functions in providing entertainment for all patients, and they were successful in producing a pantomime, concerts and variety entertainments. They also organised regular weekly whist drives and socials, and competitions for bed patients. A weekly gramophone concert and news service is given over the wireless circuit. Talks are also given bi-weekly by the Medical Superintendent.

HANDICRAFTS : The Handicraft Department was active. All bed patients undertake some form of handicrafts in bed, and the handicraft workshop is used by ambulant patients, particularly when the weather is unsuitable for outdoor occupations. Exhibitions of the work produced were held monthly.

IMPROVEMENTS : The painting and decorating of the two women's wards were completed and other alterations carried out on the wards to facilitate the work of the staff, and in particular to provide better accommodation needed by the increased use of collapse therapy. Bells were installed in the wards, and bed head lights over each bed. The Men's Recreation Room was enlarged, and the construction of the new Women's Recreation Room commenced.

MEDICAL REPORT ON PATIENTS, 1946 : Treatment during the year was carried out under orthodox lines with the fullest possible use being made of collapse therapy, particularly in early cases, the aim being to discharge as many patients as possible sputum negative and fit to return to normal employment. With regard to employment, this County is handicapped by the lack of light industry which made re-employment of some patients impossible without training in a new occupation.

Excluding patients who were prematurely discharged or discharged as not suffering from Tuberculosis, a total of 159 (88.3%) completed cases were discharged during the year, and of these 81 (50.9%) were classified as quiescent, and a further 49 (30.8%) improved. Only 38 (23.9%) patients were positive on discharge. 74 (46.5%) patients were treated by collapse therapy.

Total number discharged	.....	.....	180
Patients dismissed or who took discharge against advice before treatment was completed	.....	.....	10
Patients discharged not suffering from Tuberculosis	.....	.....	7
Patients discharged after short stay or transferred to other Institutions			4
Number of completed cases of Tuberculosis	.....	.....	159

CLASSIFICATION ON ADMISSION.			CONDITION ON DISCHARGE.		
Group " A "	.....	46 (28.9%)	Quiescent	.....	81 (50.9%)
„ " B1 "	.....	22 (13.8%)	Improved	.....	49 (30.8%)
„ " B2 "	.....	79 (49.7%)	Stationary	.....	11 (6.9%)
„ " B3 "	.....	12 (7.5%)	Worse	.....	9 (5.6%)
			Died	.....	9 (5.6%)

TREATMENT : 86 patients were treated by sanatorium routine only, with no collapse therapy. Two of these had gold injections.

Condition on discharge.

Improved	.....	71 (83.5%)
Stationary	.....	11
Worse	.....	3
Died	.....	1

These cases were either those in which collapse therapy was considered unnecessary, or in which pneumothorax failed (9 cases) and other forms of collapse therapy were either unnecessary or contra-indicated, or cases of advanced or bilateral disease.

Artificial Pneumothorax.

This was attempted and failed in 17 cases, 8 of whom had other collapse therapy later. It was successful in 60 patients, and 34 had adhesion section.

Condition on discharge.

Improved	.....	53
Stationary	.....	Nil
Worse	.....	4
Died	.....	3

Sputum : 8 (13.3%) T.B. positive on discharge.

Complications occurring in pneumothorax cases were :—

Fluid, sufficient to require aspiration	8 (13.3%)
Empyema	4 (6.7%)
Perforation of lung	2 (3.3%)
Haemothorax	2 (3.3%)

Phrenic Crush : 16 patients had this operation, of these 5 were in addition to pneumothorax and 2 to control haemoptysis.

Thoracoplasty.

14 patients had a Thoracoplasty. 9 were discharged improved and T.B. negative ; 2 were still positive, one of whom improved and the other was worse on discharge ; 3 died, 1 due to an acute obstruction unconnected with his chest condition.

Operations performed during the year :

Hexham War Memorial Hospital.

Adhesion Section	52
Phrenic Crush	15
Thoracoplasty	12 cases (25 stages)
Thoracoscopy	2

Shotley Bridge Hospital.

Thoracoplasty	6 cases (14 stages)
Phrenic Crush	1

The patients discharged not suffering from Tuberculosis were diagnosed as follows :—

Bronchial carcinoma	1
Non-specific pneumonia	1
Bronchiectasis	3
Hodgkin's disease	1
Resolved pneumonia	1

RESIDENTIAL TREATMENT IN OTHER HOSPITALS.

Preston Hospital, Tynemouth.

There were 83 patients admitted to Preston Hospital, Tynemouth. Owing to nursing difficulties it became impossible for the Tynemouth Authority to continue taking Tuberculosis cases and in October, 1946, all the County cases were discharged from Hospital. Since this date it has not been practical to admit further cases.

Ponteland Emergency Hospital.

With the closing of Preston Hospital, the beds at Ponteland Emergency Hospital have been used to capacity and during the year 43 patients were admitted. Since this was the only Hospital available for the treatment of cases unsuitable for Wooley Sanatorium, a rather more advanced type of case has had to be admitted than was originally anticipated.

It should be recorded that with the facilities available, this Hospital has done most valuable work and considering the type of case the results have been most gratifying. The patients have been very happy during their stay in Hospital and the accommodation has been of inestimable value in view of the shortage of beds for this type of case.

Stannington Children's Sanatorium.

During the year 123 children were admitted to this Sanatorium. Owing to nursing difficulties a waiting list was always present and some delay in admission of cases was ever encountered. More recently there has been a tendency for improvement. It, however, has been recognised that only the more urgent type of case should be admitted, in view of reduction of bed strength a rigid selection of cases will be necessary to avoid un-productive occupation of beds.

Hexham Emergency Hospital.

There were 25 admissions to the Orthopaedic Wards of this Hospital and 48 cases received treatment during the year. This accommodation fills a very important gap in our Tuberculosis Scheme and where there are all facilities for treating adult cases of bone and joint Tuberculosis, has again proved to be of great value.

Maintenance Allowance.

The Government scheme under Memo.266/T of Tuberculosis Maintenance Allowance was operated during the year. The present arrangements have functioned extremely well, but it is to be regretted that the scope of the scheme is so limited.

However, it is hoped that under provisions in the new Health Service Act many of these disabilities will be corrected.

The expenditure on allowances was £5,419 which was some £2,900 less than in the previous year. At the beginning of the year 98 patients were receiving allowances and 136 new patients received payment during the twelve months. In all 234 patients were assisted under this scheme, being a decrease of 95 on the previous year. Travelling allowances were granted in 53 cases, pocket money to 18 patients and discretionary allowances were paid in 15 instances. Fuller details are set out in Table 9 at the end of the Report.

Care Committee Organisations.

The Almoner's Department, owing to the steady increase of work and the more extensive areas to be covered, was strengthened by the appointment of Miss Woodburn as Assistant Almoner, who commenced duties in November, 1946.

Care Committees are now working in nine of the twelve areas envisaged. The Newburn and Castle Ward Committee began to operate on November 22nd, 1946, and at the time of writing the Hexham Committee was in action. The scheme is now virtually complete except for Committees for Alnwick and Berwick.

During the year 520 new cases were investigated by the Almoner Section and 277 old cases were under review. An increased use was made of this section and, whilst figures give some indication of the work being performed, they cannot show the value of the work carried out by the local Care Committees to alleviate the burden of Tuberculous households and lighten the weight of human suffering which cannot be measured in figures.

The report of the Almoner is furnished in the following paragraphs, a statistical analysis being included in Table

After-Care.

There was an increased demand for this service during 1946, and the nine area Sub-Committees, comprising in all 109 committee members, did valuable work in the follow up of patients discharged from Sanatoria and Hospitals. The Sub-Committees now cover all the industrial districts of the County where the incidence of Tuberculosis is highest.

The main objective of After-Care is to assist patients as far as it is practicable by helping them to overcome any social difficulty which might prove an obstacle to their complete recovery. This has been done with a large amount of success by regular visitation to investigate the problems of the patients with a view to considering each case individually and offering the best advice or help.

The most common problems for the Tuberculous person at the present time are the need for better housing, repairs to old property, adequate warm clothing, bedding, separate beds for infectious cases, extra nourishment and invalid comforts for patients confined to bed in their own homes. Last but not least is the need for someone or somebody other than immediate relatives to help to build up the lack of self confidence which is apparent in the majority of Tuberculous persons.

All those eligible to register as disabled persons under the Ministry of Labour's Scheme were encouraged to do so. The Committees greatly appreciated the presence of the local Disablement Resettlement Officers at Committee meetings which brought about closer co-operation regarding the training and resettlement of those patients fit to return to less heavy work. A few home bound cases were provided with handicraft materials by the Committees and the possible extension of this service in conjunction with the Ministry of Labour is under review.

The co-operation of the Local Authorities regarding the need for priority rehousing for overcrowded families with a history of Tuberculosis was most valuable. Though this is still a pressing problem, it is encouraging that some of the most needy cases were rehoused. Repairs to property where the condition was considered bad for the patient were taken up by the Authorities with good effect.

With the co-operation of the Poor Children's Holiday Association, four beds were obtained at their Convalescent Homes for the boarding out of children from homes where they are in danger of infection, the Council accepting responsibility for costs on the recommendation of the Tuberculosis After-Care Central Committee.

The ' long-term ' nature of the disease calls for the follow up service offered by After-Care Committees until such time as the patient is recovered or no longer requires assistance. Thus these Committees have an opportunity of doing constructive family case work, which should play an important part in the future health of the patient and his family.

COUNTY LABORATORY—1946

The total number of examinations carried out was 46,525.

The following table indicates the nature of the pathological specimens dealt with and a summary of the results.

TABLE 1.

I. Tuberculosis.

(i) Microscopical examinations.

3,450	specimens of sputum	867 positive
47	pus	4 do.
12	pleural fluid	1 do.
9	urine	4 do.
3	faeces	2 do.
1	knee fluid	
1	hydrocele fluid	

(ii) Biological tests

60	specimens of sputum	24 positive
2	pus	2 do.
4	pleural fluid	1 do.
7	urine	3 do.
5	faeces	2 do.
1	knee fluid	1 do.
1	stomach washing	1 do.

(iii) Cultural examinations

139	specimens of sputum	26 positive
2	pus	1 do.
1	pleural fluid	
1	knee fluid	1 do.

II. Diphtheria, etc.

- 7,412 swabs from Throat, Nose, etc. were examined for *B. diphtheriae*, 1,519 being positive.
- 2,587 swabs were examined for haemolytic streptococci, 440 being positive.
- 14 serological grouping tests of streptococci.
- 77 swabs were examined by direct smear for Vincent's organisms.
- 69 swabs were submitted for isolation of *B. diphtheriae* and virulence test. Of the organisms isolated 52 proved to be virulent *B. diphtheriae*.
- 50 cultures for *B. diphtheriae* type.
- 1 sample of Lemonade.
- 13 samples of Ice Cream.

III. Enteric Fevers, Dysentery, etc.,

- 64 specimens of blood were submitted for agglutination reactions with organisms of the enteric group. 3 gave positive reactions with *B. typhosus*, and 5 with *B. paratyphosus*. 5 gave positive reactions with *Br. abortus*.
- 201 specimens of faeces and 16 of urine were examined for organisms of the enteric-dysentery group, and the following organisms were isolated :—
 - B. typhosus* 2, *B. paratyphosus* B. 25.
 - B. dysenteriae* Sonne 24.
 - Salmonella typhi-murium* 2.

The following specimens were also examined for organisms of the enteric group.

13 specimens of winkles, 1 of mussels, 2 of potted meat, 1 of corned beef, 3 of milk and 1 of water.

IV. Meningitis.

7 specimens of cerebro-spinal fluid and 1 post-nasal swab were submitted from suspected cases of meningitis. Meningococci were found in 1 of the spinal fluids.

V. Venereal Diseases.

27,993 specimens were submitted for examination. The examinations comprised :—

(a) *Syphilis*.

2 sera for micro' examination for *Sp. pallida*.
 25,215 specimens of blood for Wassermann Reaction.
 1,473 specimens of cerebro-spinal fluid for W.R.
 922 specimens of cerebro-spinal for Colloidal Gold test, etc.

(b) *Gonorrhoea*.

191 specimens of blood for complement fixation test.

190 micro' examination of films for gonococci. Of the total examinations 23,639 were carried out on behalf of the Joint Committee's Clinic, 3,468 for hospitals and other institutions, and 886 for private practitioners.

TABLE II.

	COUNTY.			CITY.		
	Joint Cmtee Clinic.	Hosp. & Inst.	Pvte. Pract.	Joint Cmtee Clinic.	Hosp. & Inst.	Pvte. Pract.
Micro' <i>Sp. pallida</i>	—	—	2	—	—	—
Micro' gonococci	—	28	100	—	3	59
Blood Wassermann R.	5571	917	429	8327	1815	254
C.s.f. do.	196	23	1	384	525	—
C.s.f. Goldsol. etc.	196	5	—	384	—	—
Blood G.c.f.t.	—	52	30	2	194	11
	5,963	1,025	562	9,097	2,437	324

Table III shows the number of specimens received from the Joint Committee's Clinic relative to patients residing in the areas of other authorities.

TABLE III.

		<i>Blood for W.R.</i>	<i>C.s.f. W.R.</i>	<i>C.s.f. Goldsol.</i>	<i>Blood G.c.f.t.</i>
Durham C.C. ....	....	4,690	209	209	1
Gateshead C.B.C. ....	....	2,624	102	102	1
Tynemouth C.B.C. ....	....	281	8	8	—
South Shields C.B.C. ....	....	207	14	21	—
Sunderland C.B.C. ....	....	92	4	4	—
Cumberland C.C. ....	....	8	1	1	—
		7,902	338	337	2

In addition to the above, 5 specimens of cerebro-spinal fluid were submitted from a West Hartlepool Hospital, and 1 from a Tynemouth Hospital.

VI. Miscellaneous.

The following examinations, not already classified, have also been carried out.

- (i) for general bacteriological examination.
348 swabs from various sources, 315 urine, 11 blood cultures, 2 fluids from ankle, 5 sputum.
- (ii) Others :—56 samples of ice-cream and 1 of ice-cream powder for bacterial count & B. coli, 8 milk bottles for sterility, 12 faeces for occult blood, 2 blood for Paul-Bunnell test, 3 rats for B. pestis, 7 samples of milk for Br. abortus and 9 tests for penicillin sensitivity.

VII. Milk.

- (a) Samples for cleanliness.
(Methylene Blue Reduction Test) 1,973
- (b) Samples for B. Tuberculosis 1,221

VIII. Water.

280 samples have been examined.

Table IV shows the number of certain pathological specimens received from the various administrative districts in the County.

TABLE IV.

		Sputa for B. tuberculosis			Swabs for B. diphtheriae			Blood for Agglutin- ation.			Misc.	TOTAL
		+	—	Total	+	—	Total	+	—	Total		
<i>Boroughs.</i>												
Berwick	....	13	40	53	96	127	223	1	4	5	67	348
Blyth	....	66	207	273	53	641	694	1	—	1	121	1089
Morpeth	....	8	88	96	85	352	437	—	1	1	114	648
Wallsend	....	57	366	423	30	122	152	—	2	2	55	632
<i>Urban Districts.</i>												
Alnwick	....	7	19	26	15	71	86	1	—	1	36	149
Amble	....	5	16	21	126	234	360	—	—	—	86	467
Ashington	....	35	223	258	118	407	525	—	—	—	163	946
Bedlington	....	16	176	192	66	285	351	—	3	3	71	617
Gosforth	....	18	85	103	3	88	91	1	2	3	40	237
Hexham	....	5	25	30	1	43	44	—	9	9	41	124
Longbenton	....	8	85	93	6	64	70	—	—	—	19	182
Newbiggin	....	5	80	85	29	95	124	—	—	—	37	246
Newburn	....	20	94	114	8	129	137	—	—	—	33	284
Prudhoe	....	2	10	12	—	23	23	—	—	—	13	48
Seaton Valley	....	19	76	95	13	80	93	—	—	—	49	237
Whitley Bay	....	30	172	202	11	183	194	—	1	1	118	515
<i>Rural Districts</i>												
Alnwick	....	7	30	37	12	85	97	—	1	1	57	192
Belford	....	2	12	14	—	11	11	3	1	4	16	45
Bellingham	....	—	5	5	2	70	72	—	1	1	13	91
Castle Ward	....	7	33	40	3	32	35	—	1	1	34	110
Glendale	....	7	16	23	2	13	15	—	—	—	42	80
Haltwhistle	....	3	8	11	—	21	21	—	—	—	13	45
Hexham	....	4	35	39	8	89	97	2	4	6	115	257
Morpeth	....	11	70	81	63	361	424	—	12	12	143	660
Norham & Is.	....	2	9	11	—	9	9	3	—	3	23	46
Rothbury	....	3	5	8	14	87	101	—	—	—	29	138
Forest Hall Hosp.	....	—	—	—	41	195	236	—	—	—	6	242
Lemington Hosp.	....	—	—	—	111	178	289	—	—	—	48	337
Wallsend Hosp.	....	—	—	—	230	309	539	—	1	1	11	551
Ashington Hosp.	....	—	—	—	365	998	1363	1	1	2	1423	2788
Ems. Hosp.	....	10	37	47	—	1	1	—	3	3	46	97
Service	....	—	6	6	—	14	14	—	2	2	13	35
N.C.C. Hosp.	....	491	544	1035	8	468	476	—	1	1	859	2371
Others	....	4	9	13	—	1	1	—	—	—	1	15
Newcastle	....	2	2	4	—	6	6	—	1	1	20	31
Tynemouth	....	—	—	—	—	1	1	—	—	—	—	1
County H.	....	—	—	—	—	—	—	—	—	—	3	3
		867	2583	3450	1519	5893	7412	13	51	64	3978	14904

Milk Samples for B. tuberculosis.

A total of 1221 samples was submitted for examination. 1008 were samples of bulk milk collected by various authorities. All were examined by biological test, the results being as follows :— Positive 37 (3.7%), Negative 958, Inconclusive 13.

The following were included among the bulk samples.

	<i>Number.</i>	<i>Number positive.</i>
Tuberculin Tested	106	—
Accredited	293	13
Pasteurised	25	—
School	53	1

Table V. shows the number of samples submitted for examination by various authorities.

TABLE V.

<i>District</i>	<i>Inconclusive.</i>	<i>Positive.</i>	<i>Negative.</i>	<i>Total.</i>
County Health Dept.	4	14	383	401
Blyth	4	5	119	128
Morpeth	—	1	37	38
Wallsend	1	1	36	38
Ashington	—	—	28	28
Bedlington	—	1	32	33
Gosforth.....	1	2	34	37
Hexham	—	—	20	20
Longbenton	—	2	57	59
Newbiggin	—	1	6	7
Newburn	—	5	31	36
Prudhoe	—	—	1	1
Seaton Valley	—	—	6	6
Whitley Bay	1	2	97	100
Alnwick R.	—	—	2	2
Castle Ward	1	2	53	56
Morpeth R.	1	—	14	15
Norham & Is.	—	1	—	1
Rothbury	—	—	2	2
				13
				37
				958
				1,008

213 samples were submitted by the Ministry of Agriculture & Fisheries and were examined by biological test. Of these, 74 were single samples, 10 found to be positive, 139 bulk samples, 30 found to be positive.

Milk Samples examined by the Methylene Blue Reduction Test.

The total number examined was 1,973. 1,035 were 'designated' milks, and 938 were 'ordinary' milks.

Table VI. shows the districts from which the samples were received.

TABLE VI.

Milk Samples for Methylene Blue Reduction Test.

<i>Tuberculin</i>					
<i>District.</i>	<i>Tested.</i>	<i>Accredited.</i>	<i>Pasteurised.</i>	<i>Ordinary.</i>	<i>Total.</i>
County Health					
Dept.	301	473	18	119	911
Blyth	6	1	34	126	167
Morpeth	1	—	—	47	48
Wallsend	—	3	9	37	49
Alnwick	—	—	—	4	4
Ashington	—	—	4	27	31
Bedlington	—	3	—	41	44
Gosforth	18	27	16	82	143
Hexham	—	—	2	20	22
Longbenton	—	—	7	65	72
Newbiggin	1	—	2	6	9
Newburn	—	—	12	116	128
Prudhoe	—	—	—	4	4
Seaton Valley	2	8	13	59	82
Whitley Bay	25	3	3	98	129
Alnwick R.	—	—	—	2	2
Belford	—	—	—	1	1
Castle Ward	—	1	—	69	70
Hexham R.	—	—	34	—	34
Morpeth R.	2	4	1	9	16
Norham & Is.	—	—	—	5	5
Rothbury	—	1	—	1	2
		356	524	155	938
		1,973			

The result of the examinations were as follows :—

<i>Classification.</i>	<i>Complied with Standard.</i>	<i>Did not comply. Number.</i>	<i>per cent.</i>	<i>Total.</i>
Tuberculin Tested	..... 278	78	21.9	356
Accredited	..... 381	143	27.3	524
Pasteurised	..... 127	28	18.06	155
*Ordinary	..... 659	279	29.7	938
* (With standard for Accredited milk)	..... 1,445	528	26.8	1,973

School milk included

among the above 54 20 27.02 74

Water Samples.

279 samples of water, and one of Sewage Effluent were submitted for examination. The results are shown in the following table.

TABLE VII.

<i>Samples submitted by</i>	<i>Number of samples.</i>	<i>Classification.</i>			
		I.	II.	III.	IV.
County Health Dept.	9	5	1	2	1
Blyth	43	35	2	4	2
Ashington	6	5	1	—	—
Hexham	15	7	2	3	3
Longbenton	2	2	—	—	—
Newburn	3	3	—	—	—
Whitley Bay	7	5	1	1	—
Alnwick R.	5	3	—	1	1
Belford	2	1	—	1	—
Bellingham	3	2	—	1	—
Castle Ward	28	17	3	5	3
Glendale	20	9	5	4	2
Haltwhistle	38	11	4	2	21
Hexham R.	30	14	2	2	12
Morpeth R.	22	9	4	1	8
Norham & Is.	28	6	1	3	18
Rothbury	9	6	—	2	1
County Architect	1	1	—	—	—
Morpeth B.	8	4	3	—	1
	279	145	29	32	73

The sample of sewage effluent was submitted by Ashington U.D.

MILK (SPECIAL DESIGNATIONS) REGULATIONS, 1936—1946

During the year there was an increase of 26 Tuberculin Tested licences, whilst the number of Accredited licences decreased by 23. It is pleasing to note the awareness amongst Accredited producers of the benefits to be derived from the possession of a Tuberculin Tested licence as revealed by the fact that 19 graded up during the year. In 1939 there were only 24 Tuberculin Tested licences in the County while at the end of the year under review the total was 106.

From enquiries received from Accredited producers, there is no doubt that there will be a further increase in the future of the amount of Tuberculin Tested milk available for the public.

The total of designated licences and the record of inspections is made up as follows :—

		<i>Licences in force at</i> 31st Dec. 1946.	
Tuberculin Tested (Certified)	.....	34	
Tuberculin Tested (Bulk)	.....	72	
Accredited	.....	121	

1,004 visits were made to farms.

The number of herds for which a licence of attestation has been issued by the Ministry of Agriculture and Fisheries and Tuberculin Tested licences issued by the County Council is as follows :—

Total number of Attested licences	.....	.....	.....	174
Total number of Tuberculin Tested licences	.....	.....	.....	106
Attested not Tuberculin Tested	.....	.....	.....	98
Attested and Tuberculin Tested	.....	.....	.....	76
Tuberculin Tested only	.....	.....	.....	30

The amount of milk produced from Attested and Tuberculin Tested herds at the end of December, 1946, was 34.6% of the total amount of milk produced within the County, as compared with 24.5% in December, 1945, being an increase of 10% for the year.

Some producers still experience difficulty in obtaining suitable dairy employees. Replacements for dairy equipment improved during the year except for sterilisers.

Before the end of the year, when all designated licences fall due for renewal, it is customary to review the milk records of each producer and this year it was found necessary to communicate with three Tuberculin Tested and eight Accredited producers and draw their attention to a succession of unsatisfactory samples. Only in one case was it found necessary to refuse the renewal of an Accredited licence and in another a producer did not apply for renewal.

Phosphatase Test.

The number of Pasteurised milk samples submitted during the year for the phosphatase test to the Bacteriological Department of King's College was as follows :—

	<i>Passed</i>	<i>Failed</i>
Number of samples taken—84	77	7

WATER SUPPLIES.

Local Authorities may submit samples of water to the County Laboratory for bacteriological examination free of charge.

In the South-East part of the County supplied by Newcastle and Gateshead Water Company, the supplies were well maintained, but within the area of supply of Tynemouth Corporation the position grew rather serious towards the latter part of the summer when the reservoir became very low, and it was necessary to warn consumers of the position and to introduce a system of control so as to conserve their supply. However a break in the weather with a very heavy rainfall within the watershed of the Font reservoir allayed any further anxiety.

From these supplies 58 samples were obtained at different points of distribution and submitted for bacteriological examination and of these 46 were classified as highly satisfactory.

As mentioned in my report for 1945, the survey carried out in the rural portion of the County under the Rural Water Supplies and Sewerage Act, 1944, showed that to meet future demands for water it would be necessary (if water had to be provided at an economic price) to review the position for the whole of the County. Accordingly, the County Water Supply and Sewerage

Committee gave instructions to their Consulting Engineers to conduct their investigations with this end in view. In July of this year the Engineers presented their very comprehensive and detailed report which covers the present position and proposals for new impounding reservoirs and proposed pipe line routes of the Primary Distribution System. The suggested sites for the Impounding Reservoirs are as follows :—

(a) Northern Sector—

On the river Breamish, Near Linhope.

(b) South Eastern Sector—

On the River Coquet, about one mile above Shillmoor.

(c) South Western Sector—

Near the head waters of the Chirdon Burn, a tributary of the North Tyne.

So as to secure the end desired, the report suggests the formation under the provisions of the Water Act, 1945, of a Northumberland Water Board to assume sole responsibility for supply and distribution throughout the County.

There is no doubt that if these recommendations are carried out that it will provide a wholesome and uniform quality of water for present and future requirements to all parts of the County that fall within the practical limits of supply. General approval of the report was given by the County Water Committee and also by the County Council.

During the year 193 samples were submitted from rural areas for bacteriological examination and 82 were classified as highly satisfactory, 20 satisfactory, 24 suspicious and 67 as unsatisfactory.

The health officials of the District Councils from which the suspicious and unsatisfactory samples are obtained check up the source of supply and take any action that may be necessary to protect the consumers. In all such cases close contact is kept with this Department through the County Sanitary Officer.

Under certain conditions chemical analyses are made, but it is not a common practice of Local Authorities.

The Local Authorities who have submitted proposed schemes to the Committee for the extension of their water services under the 1944 Act are as follows :—

Alnwick R.D.C.

Water supply for Embleton and District.

Belford R.D.C.

Improvement of water supplies in the District.

Castle Ward R.D.C.

New Water Supply at Medburn Estate, Near Ponteland.

Glendale R.D.C.

Improvement and extension of the Water Supply for Wark-on-Tweed.

Haltwhistle R.D.C.

Improved water supply for the eastern half of the district.

Hexham R.D.C.

Improvement of water supply to Slaley and Low Quarter.
Improvements of water supplies to Acomb and Oakwood.

Morpeth R.D.C.

Extension of water mains from Widdrington to Chevington Moor. Extension of water main at Hepscott. Water supply scheme for Cambo and District. Extension of water mains in the parishes of Ulgham and West Chevington

In each case the Council's Consulting Engineers have examined the proposed schemes to ensure that if carried out they will fit into the Council's proposals for the County and avoid so far as possible any work carried out becoming redundant at a future date.

Sewerage and Sewage Disposal.

Schemes have been submitted to the Committee under the 1944 Act as follows :—

Castle Ward R.D.C.

Sewerage scheme proposed for Prestwick Terrace, Ponteland.

Glendale R.D.C.

Sewerage scheme for Wark-on-Tweed.

FOOD AND DRUGS ACT.

The Chief Inspector of the Weights and Measures Department has submitted the following report of the work carried out during 1946 :—

The County Council is the administrative authority under the above Act for the whole of the County. Samples for examination by the Public Analyst are taken by the County Council's Inspectors of Weights and Measures.

The figures given do not include 998 samples of milk and 9 samples of spirits which were taken and tested by the Inspectors of Weights and Measures, but which were not submitted to the Public Analyst as the preliminary tests showed them to be genuine.

The Regulations in force are the Public Health (Preservatives, etc., in Food) Regulations, 1925—1940, The Public Health (Condensed Milk) Regulations, 1923, 1927 and 1943, The Public Health (Dried Milk) Regulations, 1923, 1927 and 1943.

All samples liable to contain preservatives were tested in order to ascertain that they complied with the provisions of the above-named preservative Regulations and samples of Dried and Condensed Milk were analysed in order to check their reconstituted milk equivalents.

The percentage of adulterated milk samples still remains high, and it would appear that the penalties imposed are not severe enough as to act as a deterrent to those persons who seek to profit at the expense of the consumer.

Special attention has been paid to those articles which have been in short supply, and other articles for which the Minister of Food has laid down a minimum percentage for certain of the constituents. In this connection it will be noticed that prosecutions were successfully instituted in respect of spirits, vinegar, sausages and fish cakes.

The Inspector has appended a detailed list of the samples taken, of the results of the analysis and action taken upon them. The total of samples was 1,046, representing a very wide range of eatables, of which 107 were reported upon adversely and 40

prosecutions were made ; convictions, including cases dismissed on payment of costs, were 100%. Where vendors of unsatisfactory foodstuffs were not prosecuted, steps were taken to bring their defective goods to their notice and to warn them against future infringement.

HOUSING.

The Northumberland Joint Advisory Rural Housing Committee, whose recommendations were described at some length in the report for 1945, no longer met in 1946.

The total number of houses completed during the year was 1,329, of which, however, 728 were temporary. Of the remaining 601 permanent houses, 381 were built by Local Authorities. Only 49 of these were built in rural districts. Details are shown in Table 12.

VENEREAL DISEASES.

At the end of his Annual Report on the work of the Clinic of the Joint Committee for Venereal Diseases for the year 1946 the Director, Dr. W. V. Macfarlane, commented upon the marked increase throughout the area in total attendances which had been primarily due to an increase in incidence of new registrations of both sexes for both diseases. He stated that the most significant finding of the whole Report was the much higher percentage of all new registrations found to be suffering from venereal disease, since the total number of new registrations conveyed little unless the relative incidence of venereal to non-venereal infection was known. He commented upon a decline in the number of young infants suffering from congenital syphilis and on the eminently satisfactory defaulter rates which are to the credit of the social workers.

With regard to the local statistics of Northumberland, the total registration of new County patients at all clinics was 2,453, as compared with 1,611 in the previous year. Of this number, 1,046 or 42.6% were suffering from non-venereal conditions. There was a relative increase in the number of men registered as compared with women (61.1% men in 1945 and 72.1% in 1946.)

Treatment was carried out at the Joint Committee's Clinic at the Newcastle General Hospital, at the Clinic at Blyth, which is under the medical direction of the Joint Committee's staff but whose nurses are members of the staff of this Department, and at Preston Hospital under the County Borough of Tynemouth. The Clinic at the Newcastle General Hospital dealt with the majority of cases—1,633 registrations being made there during the year (813 or 50% found to be non-venereal). At the Blyth Clinic there were 260 new registrations and at Preston Hospital 560

Among other matters to which Dr. Macfarlane called attention in his report was the continued defaulter rate among patients treated with penicillin, and he regards popular propaganda as not being guiltless in this connection because of the exaggerated claims that have been made on behalf of penicillin. The defaulter, who believes himself to be cured and continues to lead a promiscuous life when in fact he remains a source of infection, is an obvious and serious menace, but, as the Director has shown, cases of re-infection after cure by penicillin are numerous.

He has also noted the singular lack of co-operation shown by demobilised members of the Forces already undergoing treatment who are notified to the Medical Officers of Health and thence to him by Form A.M.D.V. Of 497 patients so notified and who should, of course, have continued their treatment, only 3 came of their own accord to do so. Of these 497 persons, 147 gave addresses in Northumberland.

In addition to the Joint Committee's scheme, there are a certain number of cases in the County treated under Ministry of Health Circular 2226 of 17th December, 1940. Thirteen patients in all attended, making 123 attendances. Eight suffered from syphilis, 3 from gonorrhoea and 2 from non-venereal conditions

Contact tracing.

The volume of work of the Contact Tracer in connection with the scheme for the control of Venereal Diseases inaugurated in 1943 has shown a substantial increase during the year January 1st—December 31st, 1946. The total number of contacts sought was 240, an increase of some 65 cases as compared with the previous year.

The total number includes the following groups :

Complete names and addresses	.....	161
Incomplete information	.....	37
Vague Information	.....	42

208 contacts were identified by the Contact Tracer and of these 100 reported of their own accord for treatment and observation.

It is interesting to note the large number of contacts for whom complete names and addresses were obtained. This may be partly due to the rapid demobilisation and resettlement of the population in the area and contributes largely to the success of the Contact Tracer in tracing sources of infection.

Work on licensed premises continues to diminish.

The Contact Tracer paid 204 visits to or on behalf of contacts.

REGULATION 33B OF THE DEFENCE (GENERAL) REGULATIONS, 1939

The following information is in respect of work carried out under Regulation 33B in the County area alone during the year 1946.

Total number in respect of whom Form I	
was received	.....
Number of these cases in which attempts	
were made outside the Regulations	
to persuade Contacts to be examined	
Contacts found	.....
Contacts examined	.....

15

13

9

8

Action was taken for the first time under the above Regulation in respect of two individuals in this County. Despite every effort made to persuade these two female patients to attend for treatment, they failed to do so, and left no alternative but that Regulation 33B should be rigorously applied.

The result of these prosecutions was that one of the women concerned was bound over for twelve months on condition that she obeyed all instructions given to her at the Joint Committee's Clinic, including a direction to enter hospital. The other woman was sentenced to three months' imprisonment in the second division. In both cases it is encouraging to note that the Magistrates have adopted a firm and helpful attitude towards the problem.

Defaulter Visiting.

The " defaulter " incidence still shows an increase, but more intensive work in connection with this problem by the contact tracer and the social Department of the Joint Committee's Clinic has resulted in prompt visiting of the defaulting patients and consequent early attendance of a very large number.

In consequence, the work of the Contact Tracer in connection with defaulter visiting has increased considerably during the year under review. The following table will give some indication of the importance and success attending this aspect of the work.

Number of defaulters	.....	.....	.....	288
Number of defaulters who re-attended as a result of visiting	.....	.....	.....	206
Number of visits to defaulters	.....	.....	.....	356
Number of letters sent to defaulters	.....	.....	.....	348

Ante-natal Serological Tests.

This scheme is now firmly established as part of the Ante-natal Clinic routine, there being maintained the fullest co-operation between the Health Visitors and expectant mothers.

Statistics show that the following number of serological specimens were submitted to the Bacteriological Department for examination during the year.

	<i>Northumberland</i>	<i>Blyth</i>	<i>Gosforth</i>	<i>Ashington</i>	<i>Wallsend</i>
	1,870	621	50	586	261
Positive cases	5	3	—	—	1

Of the 9 positive cases none showed any outward signs of disease, Six attended a Clinic of their own accord, and three as the result of visiting by the Contact Tracer.

It is worthy of note that subsequently each of the babies born to these women were examined with the following results--- eight were found to be healthy and one required treatment, although no visible signs of disease were present.

Blyth Clinic.

Year's attendances	.....	.....	.....	1,256
New registrations	.....	.....	.....	78
New V. D. Cases	.....	.....	.....	49

Social Work.

Visits to defaulters	.....	.....	.....	142
Letters to defaulters	.....	.....	.....	130

DENTAL SERVICES.

During the year 1946, through the co-ordinated dental service of the County, the Dental staff have provided treatment for a considerable number of patients coming under the care of the Maternity and Child Welfare Sub-Committee, the Public Assistance Committee, the Committee for the Care of the Mentally Defective, the Blind Persons Act Committee and the Public Health Committee (tuberculous patients).

The volume of work carried out shows a considerable increase over that completed in 1945 ; 5,659 cases being treated as compared with 4,170 in the previous year. Every section of the work was expanded, the extractions, fillings and other operations being nearly doubled, while general anaesthetics were more than doubled. The figures are shown in Table 26.

As in previous years the larger proportion of treatment was provided for expectant and nursing mothers and pre-school children.

The year saw two considerable advances in the service which call for particular note. In October, 1946, a dental workshop staffed by two full-time dental machanics was opened for the provision of dentures for patients receiving treatment through the County Dental Service. This workshop is now well organised and running smoothly and is proving to be a great asset to the County. A portable X-Ray Unit was also introduced into the Service during 1946 and proved to be of the greatest value to the dental officers in their work. Additional X-ray equipment will undoubtedly be needed in the near future.

MIDWIFERY SERVICE.

The administration of this service remained the same as in previous years. During the year 229 midwives, engaged by the County Nursing Association and by the Council and in private practice, attended 8,152 cases, either as midwives or as maternity nurses. The number of confinements in hospitals was 2,920, a further increase on last year's figure of 2,621. It is of interest to know that the number of such confinements in 1940 was 349, so that the increase has been eight fold in seven years. This development is related to lack of facilities and help in the home, and there is little doubt that it will continue for some time to come, though problems of accommodation and staffing necessarily limit its extension. The number of confinements attended by midwives in the home increased from 3,049 to 5,146.

Arrangements for the admission to hospital of complicated and emergency cases and the administration of the consultant and flying squad services are described in the Report for 1945 and have remained substantially the same.

The Voluntary Car Pool Service established in 1945 was operated very satisfactorily during 1946, the owners continuing to transport cases to hospital as and when required with reimbursement by the County Council of expenses incurred. Once again appreciation must be gratefully recorded of the voluntary co-operation, always liable to be needed at inconvenient times, that has been zealously maintained.

Training of Midwives.

Full responsibility for the training of midwives was taken over by the Council with effect from 1st April, 1946.

MATERNITY HOSPITALS.

Castle Hills Maternity Home.

A successful year was completed in 1946 and the usefulness of the Maternity Home to Berwick-upon-Tweed and neighbourhood was fully maintained.

The total admissions were 224 as compared with 98 in 1945. The total number of babies born alive was 214, 208 deliveries of a single foetus and three sets of twins. There were 10 still-births equivalent to 4.5% of all births, and the neo-natal deaths were two in number, equivalent to a neo-natal death rate of 8.9 per 1,000 live births. The cause of one such neo-natal death was congenital deformity and of the other prematurity. There were no maternal deaths.

Among mothers admitted there were 9 cases of puerperal morbidity, 5 of toxæmia and 4 of pyrexia, among whom, however, only one, and she doubtfully, had an infection of the reproductive tract. There were 35 forceps deliveries.

As last year, patients were attended either by medical practitioners in the area or by midwives on the staff.

A consultant obstetrician was called in on two occasions, for a case of adherent placenta later needing a blood transfusion and for a patient requiring a blood transfusion.

Dilston Hall Maternity Hospital.

The total number of patients admitted in 1946 was 910. This compares with 774 in 1945 and shows a return to the number dealt with in 1944 (925), which was, however, a figure artificially swollen by the evacuation policy of the Ministry of Health. Total deliveries were 877 accounting for 886 babies. There were seven sets of twins and one of triplets. Seven patients were admitted after delivery of the child. There were 9 still-births equivalent to 1.02% of all births, which is half the number of last year. The neo-natal death rate was 14.7 per 1,000 live births and is higher again than last year. Of causes of the 22 cases of neo-natal death, 11 were due to extreme prematurity, the infants all being less than 3 lbs. birth weight. Less extreme prematurity accounted for another two deaths and 4 were due to gross foetal abnormalities. There were no maternal deaths.

There were nine cases of puerperal pyrexia. This is higher than the six cases of 1945, but only three, and these mild cases, appeared to have been due to streptococcal infection of the reproductive tract. All cases cleared up satisfactorily.

There were 67 forceps deliveries and Caesarean Section was performed on 33 patients. The Resident Medical Officer, Dr. A. Hart, has reported upon the causes for Caesarean Section, stating that 19 were on account of contracted pelvis of various kinds, 4 due to placenta praevia, 8 to toxaeemias of varying degree, 1 to threatened heart failure and 1 to concealed accidental haemorrhage. It is of interest to set out the conditions that have led to operative interference with pregnancy resulting in the delivery of a living child as demonstrating, if it were needed, the value of maternity homes where it can be carried out.

Blood transfusions were administered in 43 cases, 14 of them of secondary anaemia due to severe ante- or post-partum haemorrhage. The blood was supplied either by the Regional Blood Transfusion Service, Newcastle, or by Hexham Emergency Hospital.

There were again 4 cases of Hyperemesis Gravidarum.

Breast feeding was maintained in 74.49% of babies on discharge. Although this shows a decline of about 10% in comparison with last year's return, it still can be considered satisfactory and it can be attributed to the untiring efforts of the nursing staff.

During the year a Matron to the Home was appointed by the County Council and arrangements made for the services of an Assistant Medical Officer.

Mona Taylor Maternity Home.

This Home has also completed a satisfactory year of full work. A total of 541 patients was admitted and 526 babies were born. The discrepancy in these figures is accounted for by the patients who were admitted during pregnancy but left undelivered or who were in hospital but undelivered at the end of the year. It may be noted that 57% of the deliveries were of first babies. The still-birth rate was 3.4% which is somewhat higher than last year. Five of the cases were due to maternal toxæmia. There were four neo-natal deaths equivalent to a rate of 7 per 1,000 live births. Of this satisfactorily low figure, two deaths were due to prematurity, one to failure of expansion of the lungs and one to cerebral hæmorrhage following difficult labour. On leaving the Hospital 97% of babies were breast fed.

Instrumental labour was necessary in 55 cases and in 2 Caesarean Section was performed, one because of disproportion and one for prolapse of cord.

As remarked in the Report for last year, the Mona Taylor Home is intended to serve the needs of the normal, but in obstetric practice abnormalities are always likely to be encountered and the means to treat them must be ever available.

There was one maternal death from septicaemia which failed to respond to treatment both with sulphonamides and penicillin. There was no clinical evidence of uterine or vaginal sepsis.

During the year a Maternity Hospitals Sub-Committee was formed to visit the Maternity Homes of the Council and to observe their work.

MATERNITY AND CHILD WELFARE.

Infantile Mortality.

A note of infant mortality has already been made on Page 8. The situation may be summarised as follows :—

Whole County	48
Area for which the County Council is the Welfare Authority	48
England and Wales	43

The figure of 48 per 1,000 for the area in which the County Council is the Welfare Authority shows again an increase on the previous year, and, although the number of illegitimate births remains high, it does not appear that this is the sole cause, but, before drawing conclusions, a scrutiny over a period of years will be necessary to detect adverse as well as favourable influences.

Problem of Illegitimacy.

In the Report for 1945 a preliminary account was given of the purchase of a residence near Morpeth known as Bowmer Bank Hostel which was to be adapted to accommodate 10 ante-natal and 10 post-natal cases of illegitimate pregnancy and 10 babies.

During 1946 the process of adaptation went forward, albeit slowly, and it was not possible to open the Home during the period under review.

It is not proposed to confine patients at this Home and they will be admitted for the actual delivery to the Mona Taylor Home.

It was not possible to establish a residential nursery for homeless children in 1946, though the decision of the County Council to do so was recorded in the Report for 1945.

Premature Births.

The scheme of notification of premature births by form from doctors, midwives or hospitals, was in operation throughout 1946. During the year 184 cases of prematurity were notified and 50 deaths. A record was kept centrally of information received and health visitors were instructed to follow up and report upon all such cases at the end of the midwife's term of responsibility.

It was noted that the number of deaths from prematurity notified under the scheme did not correspond with the returns of the Local Registrars. This is probably due to a failure on the part of some of those responsible to notify their cases, and will improve, it is hoped, as use becomes established.

Neo-Natal Deaths.

Out of a total of 253 deaths under one year of age in the area for which the County Council is Welfare Authority, 158 or 62.4% were neo-natal deaths, *i.e.* within the first four weeks of life. The causes were as follows :—

Prematurity	.....	.....	.....	85
Respiratory Disorders	.....	.....	.....	29
Cerebral Haemorrhage	.....	.....	.....	9
Congenital Deformity	.....	.....	.....	14
Neo-natal sepsis	.....	.....	.....	3
Inanition	.....	.....	.....	1
Gastro intestinal Disorders	.....	.....	.....	9
Marasmus	.....	.....	.....	1
Pemphigus with Jaundice	.....	.....	.....	1
Haemorrhagic disease of newborn	.....	.....	.....	3
Erythro blastosis	.....	.....	.....	3

It will be noticed that more than half of these deaths were due to prematurity, the better treatment of which condition has exercised the thought of the Department during the year. It has, unfortunately, not proved possible to open the special section for premature infants at the Thomas Taylor Homes as described in the Report for 1945. The shortage of materials and equipment has been the cause of this delay.

Health Visiting Service.

Six vacancies remained at the end of the year in the total establishment of the health visiting staff and recruits remained difficult to obtain.

A study of the summary of visits made by health visitors for maternity and child welfare purposes shows that, while the first visits to infants increased to 5,303 (as compared with 4,825 in 1945 and 3,191 in 1942), a necessary consequence of the 5,490 live births registered in the administrative County, the re-visits to infants under one year of age and the visits to children aged one to five years fell as compared with last year. Actually, the re-visits to infants under one year of age were 24,343 as compared with 25,492 in 1945 and visits to children aged one to five years were 45,518 as compared with 48,294, a small decline especially when compared with the 18,389 re-visits to infants under the age of one year and the 37,482 visits to children aged one to five

years made in 1942. It is evident then that the health visitors are coping efficiently with an increasingly difficult situation, faced as they are not only by a rising birth rate but also by the demands of additional clinics.

Child Welfare Centres.

A number of new Centres was opened during the year, a development to be considered in relation to the somewhat diminished visits made by health visitors as noted above. These Centres were twelve in number at Bedlington Station, Bamburgh, Cambo, Dinnington Village, Cambois, Alnmouth, Radcliffe, Embleton, Linton, Stannington Village, Stannington Settlement and Seaton Sluice. At four of them, Cambo, Dinnington Village, Alnmouth and Radcliffe, there had been a Milk Sales Centre previously in existence.

The sessions held were 3,358 (in 1945 2,820). The total attendances of mothers was 79,072 (in 1945 76,612) and the total attendances of babies was 79,844 (in 1945 76,771).

Ante-Natal Clinics.

The attendances at the Ante-Natal Clinics continued to increase also. The number of expectant mothers attending clinics was 3,258 (in 1945, 2,528) and the total attendances were 12,640 (in 1945, 10,086). The number of mothers attending the Ante-Natal Clinics amounted to 58% of the total registered births, as compared with 53% in 1945. This is a step towards the target of 90% of possible attendances indicated in the Report for 1945.

One additional Ante-Natal Clinic was established during the year.

It is gratifying to be able to report that during 1946 two additional Assistant Medical Officers for maternity and child welfare duties were appointed, so bringing the medical establishment of the County Council up to strength in this Department.

Post-Natal Care.

Five special post-natal clinics were opened during 1946 and mothers needing advice continued to be welcomed at the ante-natal clinics and were encouraged to attend them where no special provision was available. It cannot be emphasized too

strongly that post-natal care is hardly less important than the care during pregnancy. A good deal of chronic invalidism, to an extent so far unestimated, arises from the neglect of minor derangements left over from confinement. Such defects, often trivial at the beginning and in nearly all cases remedial, can be detected at the post-natal clinic and appropriate advice given. Many women do not feel themselves in need of advice after the successful conclusion of their pregnancy and it is the aim of good obstetrics that none should be in need of treatment, but, like the other welfare services, the post-natal clinic is, or should be, aimed at the cultivation of positive health and, therefore, mothers can be urged to attend it, though they may not be suffering from any residual defect.

It was decided during the year to make no charge for treatment of mothers and children requiring spectacles, orthopaedic appliances, dental anaesthetics and removal of tonsils. The aim was to bring the practice of the Maternity and Child Welfare Department into line with that of the School Health Service, particularly where it related to children.

Distribution of Dried Milk and Vitamin Supplements.

There is nothing to add to previous descriptions of the administration of this scheme. As noted above, four Milk Distribution Centres were upgraded to become full scale baby clinics.

Day Nurseries.

The Day Nurseries at Prudhoe and Alnwick continued and the cost was borne by the Ministry of Health.

Ultra Violet Light Clinics.

Ultra Violet Light Clinics were held throughout the year at the Child Welfare Centres at Dudley and Forest Hall and at Ashington and Bedlington. Authority for three more such clinics at Alnwick, Seaton Delaval and Shiremoor was given, but they were not actually established in the period under review.

Home and Domestic Help Service.

There were two whole-time and twenty part-time home helps employed by the Council and they attended between them 98 cases. In some of the cases where they gave their assistance

they were properly to be described as home helps and in others domestic helps. Although the service of both is essentially the same, for accounting purposes they are kept separate and the expression home help may ordinarily be interpreted as applying to service given during pregnancy or the lying-in period while domestic help service is given under all other circumstances of difficulty in the home. In the future these two aspects of the same service will be merged into one, and there is no doubt that it presents very considerable scope for expansion, assuming always that its terms may be made sufficiently attractive and women will be prepared to work in sometimes difficult and depressing conditions,

The work of the home and domestic helps is supervised by health visitors and they are paid by the Council, recovery of part of the cost being obtained from patients able to afford it.

Child Life Protection.

The Health Visitors continued to act as Child Life Protection Visitors in their respective districts and maintained a close watch on the health and welfare of children under the age of nine years maintained for reward apart from their parents.

The actual number of such children and their foster mothers is small in view of the population of the County, and it has not been found possible nor necessary to establish anything on the lines of the " Birmingham Scheme " whereby a panel of approved foster mothers is maintained in the Office of the Welfare Authority to whose foster care children in need of it may be recommended.

In this County arrangements for foster care are for the most part made privately, though, of course, health visitors are willing to give their help when it is requested, and the Office is notified in the usual way.

At the end of the year there were nine registered foster mothers caring for nine children under the age of nine years.

Adoption of Children.

The Adoption of Children (Regulations) Act, 1939, which became operative in 1943 imposes duties upon the Local Welfare Authority closely similar to those exercised for foster children in all cases where adoption is negotiated by third parties, *i.e.* where the arrangement is not made directly between the parent and the prospective adoptor. The aim of the Act was undoubtedly to

control unsatisfactory agencies for the adoption of children and the reputable adoption societies have welcomed the provisions of the Act and in this area have always worked in the closest co-operation with the County Council as Welfare Authority. The details of the administration were outlined in the Annual Report for 1945 and no change was made during the year. At the end of 1946 there were 16 children under supervision.

Morbidity and Mortality Rates.

The following notes apply to the area of the County for which the County Council is the Welfare Authority.

Ophthalmia Neonatorum.

There were six cases notified during the year, all of them treated at home and all with complete recovery.

This condition, once a common source of blindness, is now readily responding to modern treatment, but the ideal should be to eliminate its incidence altogether by control of the antecedent maternal infection.

Puerperal Pyrexia,

Thirty-one cases were notified during the year. Six of them were treated at home and twenty-five in hospital. There were three maternal deaths attributed to puerperal sepsis.

Still Births.

There were 169 registered still-births out of a total of 5,659 births in the area for which the County Council was the Welfare Authority, equivalent to a still birth rate of 29.9 per 1,000 total births. In the illegitimate birth group, the still birth rate was 20.6 per 1,000 total illegitimate births.

Maternal Mortality.

Of the eight deaths due to maternal causes other than puerperal sepsis, six may be regarded as directly due to an obstetric condition and two to other causes, to the fatal effect of which obstetrical factors contributed. The causes of death were as follows :—

Haemorrhage following abortion	.....	1
Pulmonary Embolism following		
childbirth	.....	1
Post-partum haemorrhage	.....	1
Acute liver atrophy	.....	2
Obstetrical Shock	.....	1
Heart Disease	.....	2

(Mitral Stenosis — heart failure.

One patient died following Caesarean Section and the other with associated toxæmia of pregnancy).

As there were 5,659 births (live and still) in the Council's Welfare area, the maternal mortality rate was 1.4 per 1,000 births compared with 2.5 in 1945. This is the lowest rate ever recorded for the area.

BLIND WELFARE.

Registration.

There were 563 registered blind persons in the County on the 31st December, 1946, as compared with 556 at the end of the preceding year.

During the year 72 names were added to the Council's Register (compared with 75, in 1945), the number comprising the names of 64 patients certified blind by Ophthalmic Surgeons (including one whose name was reinstated after re-examination under the Referee Service of the Northern Counties Association for the Blind) and 8 blind people who removed to the County from other areas.

There were 49 deaths ; 4 were de-certified, and 12 blind persons left the County.

During the year, the County Council's Ophthalmic Surgeons examined 93 patients, of whom 63 were certified blind, and 30 not blind.

Home Visitors.

The four Home Visitors employed by the County Council made an aggregate of 8,106 visits during the year. Regular visits for Welfare and other purposes were paid to all registered blind persons resident in the County and also those in the Nicholas Garrow Home and Public Assistance Institutions.

Persons whose names were on the Prevention of Blindness Register, were also visited periodically.

Domiciliary Assistance.

The regulations for providing domiciliary assistance to unemployable blind persons were amended, the scale allowance for a man and wife, one of whom is blind, residing in the same house, being increased from 45/6 to 50/- per week, from 1st November, 1946. The scale allowance for a single blind person over 21 years of age, remained at 35/- . The Regulations also provided for the payment of a rent allowance to blind householders paying more than 5/- per week rent. The rent paid in excess of that sum could be allowed, up to a maximum of 10/-. Towards the end of the year the Blind Persons Act Committee decided to recommend to the County Council that the allowance for rent should be the amount actually paid up to 10/-, plus 50% of any amount paid in excess of that sum, the maximum rent allowance in any case, not to exceed 15/-.

It was decided that if the County Council approved the increased rates of assistance for dependants recommended by the Public Assistance Committee, that the new rates be adopted by the Blind Persons Act Committee provided that the amount of financial assistance paid to a single blind person, with one dependent adult, did not exceed the sum of 50/- payable to a blind man and his wife.

These recommendations were subsequently approved and became operative early in 1947.

During the year, 65 new applications for financial assistance were granted and in December, 1946, there were 326 blind persons receiving grants as compared with 329 the preceding December.

The increased Old Age Pensions became operable at the end of September, 1946, resulting in the amounts of domiciliary Assistance paid to blind persons, being considerably reduced.

The sum of £16,917 15 2d. was paid to blind persons in the County in respect of domiciliary assistance during 1946.

Nicholas Garrow Home for Blind Persons.

During the year the administration of the Nicholas Garrow Home for Blind Persons—which has accommodation for 6 women and 6 men—was separated from the Thomas Taylor Homes and the Blind Persons Act Committee became directly responsible for it. All the food and other necessities were purchased by the Nurse-in-Charge and a charge for rent, lighting, etc. was paid to the Public Assistance Committee.

During the year new premises at Hepscoth, near Morpeth, were purchased for conversion to a Permanent Home, which will have accommodation for 22 blind people.

Residents of the present Home at Stannington continued to enjoy similar privileges to those of the previous year, outings and parties being arranged for their entertainment.

Public Assistance Institutions.

The Blind Persons Act Committee are responsible for the maintenance of blind persons accommodated in Public Assistance Institutions. During the year, forty blind persons were thus accommodated, 23 permanently and 17 for temporary periods.

Training and Employment.

During the year three blind men and one partially blind youth (whom, it is anticipated, will be blind within the meaning of the Blind Persons Act, in a year or two) received industrial training at the Royal Victoria School for the blind, while two other youths commenced training at the Catholic Blind Asylum, Liverpool, and the Yorkshire School for the Blind respectively. One girl commenced training as a shorthand-typist at the Royal Normal College.

Twenty-four blind persons from the County were employed at the Workshops for the Adult Blind in December. The earnings of two Home Workers, a piano tuner and a stick chopper, were subsidised by the County Council and a third, a Braille copyist, was employed by the National Library for the Blind, Manchester.

Blind persons employed on their own initiative included two masseurs, four telephone operators, a sugar merchant, a caretaker, two piano tuners, a gardener, a farmer and a pig-keeper.

Social Welfare.

A new Voluntary Society for the Blind was established in the Newburn Urban District in December, which meant that seven Voluntary Committees were functioning at the end of the year ; Societies having previously been established at Ashington, Blyth, Bedlington, Seaton Valley, Morpeth and Prudhoe.

For the third time within recent years the annual joint outing of the Voluntary Committees for their blind persons took place at Blagdon Hall at the invitation of Lord and Lady Ridley. In addition to this joint outing, each Voluntary Society arranged individual outings and parties for the blind people in their respective districts.

A proportion of the collections received by the National Institute for the Blind is allocated to the Northumberland County Blind Persons Trust Fund for social welfare purposes in the County. The Fund is administered by the Department and during the year it received £1,392 0 11d. as compared with £1,285 1 3d. the previous year. Grants were made from the Trust Fund to the Voluntary Societies, while monetary gifts were also distributed to blind persons through the Home Visitors. The Social Club for blind people resident in the Wallsend and Willington Quay districts continued to function, the members meeting periodically in a room rented from the Local Youth Club. During the summer, four blind persons from the Gosforth area spent an enjoyable holiday at Hope, Derbyshire, as the guests of the Rotary Club.

Bedding and clothing were provided out of the Blind Persons Trust Fund in very deserving cases. Two blind people were provided with hearing aids through the Fund, the Northern Counties Association for the Blind contributing one third of the cost involved.

Patients suffering from Defective Eyesight and Presbyopia.

285 patients who attended the Newcastle Eye Hospital, County Refraction Clinics or the Royal Victoria Infirmary for refraction were provided with spectacles under the Council's scheme for the provision of spectacles, for patients suffering from defective eyesight and presbyopia.

Wireless for the Blind.

The British Wireless for the Blind Fund allocated 15 wireless sets for distribution to blind persons in the County, in addition to which 14 new relays were installed.

Certificates of blindness to enable blind persons to obtain free wireless licences were issued.

Prevention of Blindness.

Seven patients received operative treatment at the Newcastle Eye Hospital under the Council's Scheme during the year, resulting ultimately in the de-certification of five of the patients. Twenty-seven persons were provided with spectacles under this Scheme.

Highly relevant to the question of prevention of blindness are the conditions which have led to loss of sight in the registered blind. A scrutiny of the case sheets of 49 persons registered during 1946 yielded the following information :—

Age distribution (Age of onset of blindness) :

Under 20 years of age	.....	6	12.2%
Between 20 and 45 years	.....	None	—
Between 45 and 65 years	.....	10	20.4%
Between 65 and 75 years	.....	12	24.5%
Over 75 years	.....	21	42.8%

It will be seen that 67.3% of all cases were over 65 years of age and that the majority of blind persons for whom the Blind Persons Act Committee is responsible are elderly.

Causes of Blindness.

Primary Cataract	.....	.....	.....	16
Degenerative changes due to artieral disease with or without cataract	.....	.....	.....	10
Degenerative changes due to myopia with or without cataract	.....	.....	.....	5
Glaucoma	.....	.....	.....	5
Effects of Syphilis	.....	.....	.....	2
Congenital Causes	.....	.....	.....	5
(They were all under 20 years).				
All other causes	.....	.....	.....	6
(Including one due to injury also under 20 years).				

Of these causes, primary cataract and syphilitic effects are capable, in many cases, of alleviation by appropriate surgical and medical treatment. It does not follow, however, that all cases, where treatment for cataract is theoretically possible, are, in fact, able to receive it, since other infirmities may contraindicate operation. In the present state of our knowledge, the majority of other conditions listed above are insusceptible to any treatment, nor, when the condition is the result of natural wearing out of tissues, as in many cases of arterial degeneration, is effective treatment ever likely to be possible. The small number of cases of blindness due to preventable causes is, however, satisfactory and should be reduced to nothing.

Home Teachers' Visits.

The following visits were paid by the four home visitors during 1946 :—

Number of visits for Welfare purposes	6,547
Number of visits to give lessons	168
Number of visits to investigate new cases	87
Number of visits to supervise home workers	39
Number of visits re Prevention of Blindness	395
Number of visits re Provision of Spectacles	143
Number of visits to convey patients to hospital, etc.	90
Number of visits to convey wireless sets for overhaul, etc.	178
Number of special visits (Institutions, etc).....	459
<hr/>	
Aggregate number of visits	8,106
<hr/>	

Number of Blind Persons on Register during 1946.

Number of blind persons on register on 1st January, 1946	556.....
Names added to register :—	
New cases	64
Transfers	8
	— 72
	<hr/>
	628
Names removed from register :—	
Deaths	49
Decertified	4
Left district	12
	— 65
	<hr/>
Number of blind persons on register on 31st December, 1946.	563
	<hr/>

CIVIL NURSING RESERVE.

The Department continued the work of the Northumberland Local Emergency Organisation and there was no change in administration.

At the beginning of the year the Ministry of Health announced arrangements for the release of members according to length of service, for the opening of membership to persons willing to serve in an emergency, this new class to be known as “ The Emergency Members Section,” and for the payment of members giving part-time service. There were no other important developments during the year.

The registered members of the Civil Nursing Reserve numbered 139 at the end of 1946 compared with 252 at the end of 1945, made up as follows :—

				1946	1945
Trained Nurses	.....	.....	.....	24	31
Assistant Nurses	.....	.....	.....	36	56
Nursing Auxiliaries		.....	.....	79	165

In addition, one part-time assistant nurse and five part-time nursing auxiliaries were enrolled on the Emergency Members' Section.

—:O:—

TABLES OF
STATISTICS
FOR 1946

—:O:—

TABLE 1.

ADMINISTRATIVE COUNTY OF NORTHUMBERLAND.

POPULATION—YEAR 1946.

Boroughs—

Berwick-on-Tweed	....	....	....	....	11,420
Blyth	....	....	....	....	33,020
Morpeth	....	....	....	....	9,658
Wallsend	....	....	....	....	46,410
					<hr/> 100,508

Urban Districts—

Alnwick	....	....	....	....	6,900
Amble	....	....	....	....	4,324
Ashington	....	....	....	....	28,460
Bedlingtonshire	....	....	....	....	26,540
Gosforth	....	....	....	....	22,390
Hexham	....	....	....	....	9,777
Longbenton	....	....	....	....	23,330
Newbiggin/Sea	....	....	....	....	9,306
Newburn	....	....	....	....	20,290
Prudhoe	....	....	....	....	9,165
Seaton Valley	....	....	....	....	25,750
Whitley Bay	....	....	....	....	30,430
					<hr/> 216,662
					<hr/> 317,170

Rural Districts—

Alnwick	....	....	....	....	11,700
Belford	....	....	....	....	4,884
Bellingham	....	....	....	....	4,767
Castle Ward	....	....	....	....	12,880
Glendale	....	....	....	....	7,606
Haltwhistle	....	....	....	....	7,143
Hexham	....	....	....	....	19,910
Morpeth	....	....	....	....	15,960
Norham & Islandshires	....	....	....	....	4,442
Rothbury	....	....	....	....	5,615
Newcastle-on-Tyne (Moorhall and precincts)	....	....	....	....	3
					<hr/> 94,910
					<hr/> 412,080

TABLE 2
VITAL & MORTALITY STATISTICS.

Year.	Birth rate per 1,000 living.	General death rate per 1,000 living.	Infant mortality rate per 1,000 births	Zymotic death rate per 1,000 living.	Death rate from Respiratory Tuberculosis per 1,000 living.
1892	33.25	18.41	130.00	1.42	1.67
1893	33.22	18.50	160.00	2.35	1.67
1894	31.76	16.12	131.73	1.51	1.56
1895	32.59	18.72	156.28	2.29	1.62
1896	31.75	15.87	136.74	1.46	1.43
1897	31.57	16.73	150.66	1.69	1.50
1898	30.88	17.44	169.80	1.99	1.32
1899	31.46	17.71	173.88	2.29	1.27
1900	31.24	17.53	160.31	1.73	1.38
1901	33.22	18.72	183.57	2.80	1.25
1902	32.76	16.63	126.90	1.40	1.25
1903	32.58	16.81	145.43	1.58	1.19
1904	29.42	17.12	168.69	1.99	1.17
1905	30.41	15.01	133.57	1.26	1.02
1906	29.09	14.52	136.28	1.51	1.04
1907	28.25	13.51	112.93	1.03	1.00
1908	29.46	14.82	146.41	1.28	0.95
1909	28.43	13.39	106.99	1.03	1.01
1910	26.91	12.99	114.73	1.01	0.93
1911	27.48	13.96	136.79	1.94	0.98
1912	27.05	12.98	93.80	1.02	0.86
1913	26.43	13.61	111.39	1.28	0.91
1914	26.61	13.31	113.78	1.33	0.91
1915	24.42	15.82	122.00	2.04	1.03
1916	21.91	13.75	101.00	0.84	1.10
1917	20.39	13.60	101.00	0.97	1.06
1918	21.54	17.26	101.00	1.07	1.22
1919	22.14	14.11	102.00	0.92	0.97
1920	28.30	12.89	90.00	0.76	0.92
1921	25.50	12.42	95.00	1.01	0.87
1922	22.54	12.72	87.00	0.41	0.88
1923	22.56	11.33	76.00	0.74	0.85
1924	22.18	12.06	83.00	0.40	0.82
1925	20.88	11.63	82.00	0.67	0.78
1926	20.02	11.37	77.00	0.53	0.73
1927	17.90	11.53	77.00	0.27	0.81
1928	18.37	11.39	67.00	0.28	0.68
1929	16.79	12.22	81.00	0.65	0.74
1930	17.13	11.02	62.00	0.23	0.78
1931	16.66	12.24	77.00	0.41	0.75
1932	15.94	11.33	67.00	0.25	0.68
1933	15.42	11.93	71.00	0.31	0.65
1934	15.48	11.78	69.00	0.43	0.60
1935	15.60	11.67	71.00	0.32	0.53
1936	15.26	12.02	70.00	0.30	0.55
1937	15.16	12.67	66.00	0.26	0.54
1938	15.00	11.76	64.00	0.31	0.40
1939	14.80	11.84	55.50	0.20	0.52
1940	15.00	12.44	59.00	0.17	0.55
1941	15.07	12.84	74.00	0.25	0.51
1942	16.39	11.59	54.00	0.20	0.39
1943	17.61	12.50	56.00	0.18	0.51
1944	19.87	12.16	48.00	0.21	0.50
1945	17.58	12.24	50.00	0.17	0.47
1946	19.74	11.98	48.00	0.13	0.49

TABLE 3
 INFANT MORTALITY.
 1946.

				<i>Urban Districts</i>	<i>Rural Districts</i>	<i>Administrative County</i>
Infant deaths	....	....	....	317	77	394
Live births	....	....	....	6,456	1,679	8,135
Infant mortality rate per 1,000 live births	....	....	....	49	46	48
<i>Legitimate Infants.</i>						
Infant deaths	....	....	....	302	66	368
Live births	....	....	....	6,135	1,576	7,711
Infant mortality rate per 1,000 live births	....	....	....	49	42	48
<i>Illegitimate Infants.</i>						
Infant deaths	....	....	....	15	11	26
Live births	....	....	....	321	103	424
Infant mortality rate per 1,000 live births	....	....	....	47	107	61

STILL BIRTHS.
 1946.

Still births	....	....	....	203	41	244
Total number of registered births				6,659	1,720	8,379
Population	....	....	....	317,170	94,910	412,080
Still Birth rate per 1,000 regist- ered births	....	....	....	30.49	23.84	29.12

TABLE 4.

Notification of Infectious Diseases.

CIVILIANS ONLY.

1946.

COUNTY DISTRICTS	Small-pox.	Enteric Fever.	Paratyphoid Fever.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Erysipelas.	Measles.	Pneumonia	Puerperal Pyrexia.	Acute Poliomyelitis	Cerebro-Spinal Fever	Totals
<i>Boroughs</i>													
Berwick	—	—	—	1	13	12	4	99	3	2	—	—	134
Blyth	—	—	1	43	67	45	13	641	58	2	1	2	873
Morpeth	—	—	—	1	2	61	—	155	1	—	2	—	222
Wallsend	—	—	—	63	70	48	6	424	97	—	—	—	708
<i>Urban Districts</i>													
Alnwick	—	1	—	5	—	7	1	50	—	1	—	—	65
Amble	—	—	—	1	—	53	—	10	—	—	—	—	64
Ashington	—	—	—	12	135	76	6	57	31	1	—	3	321
Bedlingtonshire	—	—	—	7	45	55	3	194	32	4	1	3	344
Gosforth	—	—	—	22	81	5	13	113	24	1	5	—	264
Hexham	—	—	—	10	26	2	2	93	14	—	—	—	147
Longbenton	—	—	—	64	14	10	5	46	4	—	—	2	145
Newbiggin-by-the-Sea	—	—	—	9	43	12	6	5	50	2	—	—	127
Newburn	—	—	—	19	63	11	4	52	21	1	—	1	172
Prudhoe	—	—	—	7	16	1	6	16	13	—	1	1	61
Seaton Valley	—	—	—	46	12	28	2	137	7	1	—	3	236
Whitley Bay	—	—	—	31	104	18	9	273	31	—	2	—	468
<i>Rural Districts</i>													
Alnwick	—	—	—	5	2	2	1	55	—	—	3	1	69
Belford	—	—	—	4	3	—	1	113	1	—	—	—	122
Bellingham	—	—	—	6	29	1	—	—	11	—	—	—	47
Castle Ward	—	—	—	20	54	5	4	55	16	8	—	1	163
Glendale	—	—	—	2	88	2	4	69	10	—	—	2	177
Haltwhistle	—	—	—	5	2	2	1	34	15	—	—	—	59
Hexham	—	—	—	21	45	6	2	81	15	9	4	1	184
Morpeth	—	1	—	9	2	72	3	43	2	—	3	2	137
Norham & Islandshires	—	—	2	2	27	—	—	69	1	—	—	2	103
Rothbury	—	—	—	3	47	14	12	13	13	—	—	—	102
Totals	—	2	3	418	990	548	108	2,897	470	32	22	24	5514

TABLE 4a.

Notifications and Deaths.

	1946		1945		1944		1943	
	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths	Notifications	Deaths
Scarlet Fever	418	1	664	1	926	1	1080	1
Enteric Fever	5	—	6	1	3	—	8	1
Diphtheria	548	14	877	22	817	31	517	28
Measles	2897	3	4161	3	2275	3	3132	6
Whooping Cough	990	10	475	6	834	10	1035	12
Diarrhoea and Enteritis (under 2 years)	—	24	—	34	—	36	—	23

TABLE 5.

TUBERCULOSIS
Deaths and Death Rates — 1946.

	Respiratory Tuberculosis.				Other Tuberculous Diseases.				Tuberculosis (all forms)			
	Deaths.	Death Rates per 100,000 living.	Increase in rates since 1945	Decrease in rates since 1945.	Deaths.	Death Rates per 100,000 living.	Increase in rates since 1945.	Decrease in rates since 1945.	Deaths.	Death Rates per 100,000 living.	Increase in rates since 1945.	Decrease in rates since 1945.
Administrative County	200	49	2	—	42	10	—	2	242	59	—	—
Urban Districts ...	154	49	—	—	36	11	—	1	190	60	—	1
Rural Districts ...	46	48	7	—	6	6	—	7	52	54	—	—
England and Wales ...	—	46	—	6	—	8	—	2	—	54	—	6

It will be noted that the death rate in respect of the whole Administrative County from all forms of Tuberculosis in 1946 was 59 per 100,000 living persons. In 1900 the rate was 200. The percentage of deaths from Tuberculosis in 1900 was 11.4 against 4.9 in 1946.

The total number of deaths from all causes in 1900 was 6,822, whilst in 1946 it was 4,930.

TABLE 6.

Tuberculosis Notifications.

Notifications and Mortality at specified age periods during the year 1946.

Age Periods	*New Cases.						Deaths					
	Respiratory			Non-Respiratory			Respiratory			Non-Respiratory		
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
0—	—	1	1	2	1	3	—	1	1	3	—	3
1—	4	9	13	10	7	17	1	—	1	5	5	10
5—	24	13	37	16	12	28	1	3	4	3	4	7
15—	178	125	303	29	29	58	76	54	130	4	10	14
45—	68	20	88	4	4	8	38	15	53	4	1	5
65 and upwards	8	4	12	—	2	2	6	5	11	—	3	3
TOTALS	282	172	454	61	55	116	122	78	200	19	23	42

* Includes new cases coming to the knowledge of the County Medical Officer other than by Formal Notification.

TABLE 7.

Return showing the work of the Dispensaries.

[illegible]

TABLE 8.
TREATMENT OF TUBERCULOSIS
Residential Treatment.

	Wooley Sanatorium	Preston Emergency Hospital	Hexham Emergency Hospital	Ponteland Emergency Hospital	Children's Sanatorium	Preston Hall Colony
Admissions	217	83	25	43	123	—
Discharges	180	119	22	31	117	1
Total Number of Patients who re- ceived treatment during the year	317	119	48	50	182	1
Total Number of Patient days	46,795	9,019	7,382	3,531	25,593	88
Number of Patients receiving treat- ment at end of year	137	—	26	19	65	—

TABLE 9.
Tuberculosis Allowances.

<i>Maintenance</i>	<i>Domicil.</i>	<i>Institutional.</i>	<i>Total.</i>
Number of patients in receipt of allowances on 1st pay day in 1946 (9th January, 1946)	72	26	98
New Cases	122	14	136
<i>Total number who received Allowances during the year</i>	194	40	234
<i>Number in receipt of Allowances on 31st December, 1946</i>	37	27	64
Number who received Special Payments during year....	....	....	71*
Discretionary Allowances during the year ....	....	....	15
Number in receipt of Special Payments on 31st December, 1946 ....	....	....	27†
Discretionary Allowances at December 31st, 1946 ....	....	....	4

Expenditure.

Domiciliary	Institutional	Total
£3,285 16s. 7d.	£2,133 16s. 2d.	£5,419 12s. 9d.

*53 travelling expenses : 18 Pocket Money

†21 travelling expenses : 6 Pocket Money

TABLE 10.

TUBERCULOSIS AFTER-CARE.

1st January—31st December, 1946.

Number of Care Committees now functioning.

Nine of the original plan of twelve Committees are operating at :—
 1 Wallsend, 2 Blyth, 3 Ashington, 4 Bedlington, 5 Morpeth, 6 Seaton Valley, 7 Whitley Bay, 8 Gosforth and Longbenton, 9 Newburn and Castle Ward.

Number of new cases referred to the Almoner.

520.

Old cases under review.

277. Of the total 797 cases approximately 660 have been passed on to the After-Care Committees for consideration.

Details of help given.

Free Milk	....	....	....	....	....	....	....	297
							orders have been issued	
Referred for re-housing			....	....	....	....	....	89
Re-housed	....	....	....	....	....	....	....	22
Housing Repairs		....	....	....	....	....	....	6
Beds (including loan of beds and blankets, also help to obtain priority dockets)		....	....	....	....	....	....	32
Bedding	....	....	....	....	....	....	....	97
Clothing and Clothing Coupons			....	....	....	....	....	118
Invalid comforts	....	....	....	....	....	....	....	55
Registered as Disabled Persons			....	....	....	....	....	70
Emergency financial grants	....		....	....	....	....	....	15
Referred for special payments under 266/T	....		....	....	....	....	....	5
Other forms of help	....	....	....	....	....	....	....	54

Other Agencies employed.

Families Welfare Association, London
 British Legion
 S.S. & A.F.A.
 Red Cross Emergency Help
 Assistance Board
 Ministry of Labour
 P.A.C.
 Poor Children's Holiday Association
 Tyneside Council of Social Service
 Probation Officers
 N.S.P.C.C.
 Board of Trade
 Invalid Loan Society
 Poor Persons Legal Aid
 District Nurses
 Housing Authorities
 John Routledge Hunter Convalescent Fund

Visits by Almoner.

Visited by Almoner at their homes	....	....	....	....	207
Visited by Almoner at Hospital	....	....	....	....	47

TABLE 11.

Examination of Milk for B Tuberculosis

No. of samples tested for Year 1012					-
Total number of Positive results					37
Deduct—Duplicate samples					5
					—
Total tuberculous supplies investigated					32
					—
Cases completed by slaughter of one or more cows					18
(Number of cows slaughtered 22).					
Cases completed, no cows found					
{	Cases where cows disposed of before or during investigation				
	presumed to be affected animals				7
{	No information				3
					—
					10
Cases in progress at end of year					4
					—
					32

Percentages of Positive results over number of samples taken.

Accredited	T.T.	Pasteurised	School	Ungraded	All samples
6.28	—	—	1.89	2.91	3.66

TABLE 12.
HOUSING

HOUSES COMPLETED DURING 1946

AUTHORITY	(A) By Local Authority		(B) By other Persons		Total
	Perm.	Temp.	Perm.	Temp.	
<i>Municipal Boroughs.</i>					
1. Berwick-on-Tweed	—	50	1	—	51
2. Blyth	22	57	5	—	84
3. Morpeth	—	71	—	—	71
4. Wallsend	2‡	151	25‡	—	178
<i>Urban Districts</i>					
5. Alnwick	30*	50	—	—	80
6. Amble	—	—	—	—	Nil
7. Ashington	10	67	2	—	79
8. Bedlington	14	50	—	—	64
9. Gosforth	50	63	50	—	163
10. Hexham	—	—	1	—	1
11. Longbenton	95	10	18†	—	123
12. Newbiggin-by-Sea	14	15	—	—	29
13. Newburn	78	50	52	—	180
14. Prudhoe	—	35	—	—	35
15. Seaton Valley	—	47	8	—	55
16. Whitley & Monks'ton	17	—	46‡	—	63
<i>Rural Districts</i>					
17. Alnwick	12	12	—	—	24
18. Belford	—	—	—	—	Nil
19. Bellingham	—	—	—	—	Nil
20. Castle Ward	10	—	5	—	15
21. Glendale	—	—	—	—	Nil
22. Haltwhistle	—	—	—	—	Nil
23. Hexham	—	—	3	—	3
24. Morpeth	25	—	3	—	28
25. Norham & Islandsh's	2	—	—	—	2
26. Rothbury	—	—	1	—	1
	381	728	220	—	1329

* including 12 conversions

† includes 8 additional houses provided by conversions into flats.

‡ including 30 completely rebuilt after war damage.

TABLE 13.

RURAL HOUSING SURVEY
Inspection of Dwelling Houses during Year

NO. AND CLASSIFICATION

			Satisfactory in all respects	Minor Defects	Requiring repair structural alter- tion or improve- ment	Appropriate for reconditioning under housing (Rural Workers Acts)	Unfit for habita- tion and beyond repair at reason- able expense	Total
Rural Districts								
17.	Alnwick	....	—	—	—	—	—	Nil
18.	Belford	....	—	—	—	—	—	Nil
19.	Bellingham	....	—	—	—	—	—	Nil
20.	Castle Ward	....	146	112	344	166	305	1073
21.	Glendale	....	—	—	—	—	—	Nil
22.	Haltwhistle	....	15	64	20	—	11	110
23.	Hexham	....	75	95	137	62	8	377
24.	Morpeth	....	—	—	—	—	—	Nil
25.	Norham and Islandshires		Not		classified			152
26.	Rothbury	....	93	80	49	—	39	261
			329	351	550	228	363	1973

TABLE 14.

MIDWIFERY SERVICE.

Cases attended by Midwives.

Year	By C.N.A. Midwives			By County Council Midwives			In Institutions.			In Independent Practice.		
	Mid.	Mat.	Total	Mid.	Mat.	Tot.	Mid.	Mat.	Total	Mid.	Mat.	Tot.
1942	1,528	2,316	3,844	365	127	492	646	501	1,147	22	22	44
1943	1,526	2,440	3,966	371	133	504	658	522	1,180	13	15	28
1944	1,686	2,551	4,237	492	155	647	1,092	621	1,713	27	26	53
1945	1,323	1,775	3,098	359	92	451	1,746	875	2,621	13	21	34
1946	2,017	2,504	4,521	485	140	625	1,995	925	2,920	28	58	86

Inspection of Midwives.

The total number of visits of inspection made by Inspectors of Midwives and Assistants was 1,016.

TABLE 15.
Number of Midwives employed.

Domiciliary			In Institutions.						
By C.N.A.	By Council	Private Practice	Dilston Hall	Cor- bridge	Will. Quay	Wall- send	Halt- whistle	Mona Taylor	Castle Hills
175	7	6	10	7	8	5	4	4	3

TABLE 16.
Maternal Mortality.

Year	Puerperal Sepsis		Other Puerperal Causes		Total Deaths	Rate per 1,000 Births	Total Births (Live and Still).
	Deaths	Rate per 1,000 Births	Deaths	Rate per 1,000 Births			
1937	6	0.93	20	3.11	26	4.04	6,430
1938	4	0.63	14	2.20	18	2.83	6,350
1939	3	0.47	17	2.68	20	3.15	6,356
1940	8	1.23	20	3.08	28	4.31	6,502
1941	8	1.24	16	2.47	24	3.71	6,469
1942	7	1.04	12	1.78	19	2.82	6,746
1943	5	0.70	8	1.13	13	1.83	7,094
1944	6	0.75	10	1.26	16	2.01	7,966
1945	5	0.70	12	1.69	17	2.39	7,106
1946	3	0.36	8	0.95	11	1.31	8,379

TABLE 17.
Puerperal Pyrexia.

Year	Total Cases Notified	Treatment at	
		Home	Hospital
1942	22	12	10
1943	31	9	22
1944	32	8	24
1945	34	6	28
1946	31	6	25

TABLE 18.

Ophthalmia Neonatorum.

No. of births attended by Midwives as such	Total Cases Notified.	Total Admitted to Hospital	Nursed at Home.	Total Recovered.
4,525	6	—	6	6

TABLE 19.

MATERNITY AND CHILD WELFARE SERVICE.

Infant Welfare Centres.

Year	Sessions Held	Total Attendances of mothers	Total Attendances of babies
1942	2768	75,854	65,791
1943	2784	80,586	71,832
1944	2651	74,740	73,695
1945	2820	76,612	76,771
1946	3358	79,072	79,844

TABLE 20.

Ante-Natal Clinics.

Year	No. of Expectant Mothers Attending Clinics	Total Attendances
1942	1,580	6,093
1943	1,985	6,473
1944	1,995	6,743
1945	2,528	10,086
1946	3,258	12,640

TABLE 21.

Notification and Registration of Births.

Notified Births			Registered Births			Illegitimate Births (included in the Registered Births)		
Live	Still	Total	Live	Still	Total	Live	Still	Total
5,205	99	5,304	5,490	169	5,659	284	6	290

TABLE 22.

Health Visiting Service.

Summary of visits made by the staff for Maternity and Child Welfare purposes :—

Year	Live Births Registered in the Administrative County	First Visits to Infants	Re-visits to Infants under the age of 1 year	Visits to Children Age 1—5 years.	Ante-natal Visits	
					First Visits	Re- Visits
1942	3,605	3,191	18,389	37,482	795	559
1943	3,648	3,495	21,452	40,700	719	726
1944	4,093	3,978	25,406	45,205	710	844
1945	4,666	4,825	25,492	48,294	625	670
1946	5,490	5,303	24,343	45,518	664	664

TABLE 23.

Ante-Natal Care of Mothers.

Ante-natal Cases		Post-natal Cases		Rural Ante-natal Scheme
Total No. of Expectant mothers who attended the Centres	Total attendances of Expectant Mothers	Total No. of mothers who attended the Centres	Total attendances of mothers at all Centres	No. of Consult- ations
3,258	12,640	296	409	7

TABLE 24.

Service of Home Helps.

Number of Home Helps employed :- 2 whole-time
20 part time

Number of cases in which Home Helps provided :- 98.

TABLE 25.

DIPHTHERIA IMMUNISATION.

Pre-School Children.

1946.

		<i>No. of children immunised.</i>
At Child Welfare Centres .....	.....	3,250
By Medical Practitioners .....	.....	824
		<hr/>
	Total	4,074

Tables 17 to 25 relate to the area of the County Welfare Authority.

TABLE 26.—Dental Services.

	1945						1946								
	M. & C.W. Patients	Children	T.B. Patients	P.A. Patients	M.D. Patients	Blind Patients	TOTAL	M. & C.W. Patients	Mothers	Children	T.B. Patients	P.A. Patients	M.D. Patients	Blind Patients	TOTAL
Number of appointments made Total	3,754 4,117	363	445	326	544	52	5,484	5,017 5,613	596		688	698	218	97	7,314
Number of appointments kept Total	2,546 2,850	304	444	289	535	52	4,170	3,561 4,068	507		642	638	217	94	5,659
Number of Extractions Total	3,139 3,947	808	174	200	183	46	4,550	5,204 6,160	956		606	504	190	114	7,574
Number of fillings Total	180 202	22	194	1	4	—	401	305 342	37		245	1	1	—	589
Number of other Operations Total	790 992	202	113	68	393	3	1,569	2,574 2,784	210		368	491	150	79	3,872
Number of Dentures—Fitted Repaired	431 28		23 12	73 5	13 33	18 4	558 82	531 53			34 20	151 5	14 26	16 2	746 106
Number of General Anaesthetics Total	42 133	91	—	4	1	1	139	106 280	174		32	8	3	4	327

TABLE 27.

VENEREAL DISEASES REGULATIONS.

Treatment at the Joint Committee's Clinic, Newcastle,
during the years, 1945 and 1946.

	1945			1946		
	Males	Fem.	Tot.	Males	Fem.	Tot.
1—Under treatment or observation at beginning of year	280	334	614	302	314	616
2—Returned for treatment after having ceased to attend during any previous year	10	7	17	11	23	34
3—Dealt with for the first time—						
Syphilis	67	54	121	104	77	181
Soft Chancre	2	1	3	10	1	11
Gonorrhoea	135	79	214	238	79	317
Non-venereal and undiagnosed conditions	343	229	572	570	243	813
	—547	—363	—910	—922	—400	—1322
4—Number of cases dealt with for the first time known to have received treatment at other centres	77	23	100	242	35	277
5—Discharged after completion of treatment	403	309	712	796	369	1165
6—Ceased to attend before completion of treatment	41	38	69	31	11	42
7—Number of cases which ceased to attend after completion of treatment but before final tests of cure	26	8	34	52	10	62
8—Transferred to other centres, etc.	152	58	210	177	72	249
9—Under treatment or observation at end of year	302	314	616	421	310	731
10—Total number of attendances	5,903	5,345	11,248	9,937	5,761	15,698
11a—Total number of In-patients admitted for treatment during the year	78	52	130	69	35	104
11b—Aggregate number of In-patient days of treatment given	787	367	1,154	882	329	1,211
12—Number of cases of congenital syphilis (included in item 3 above)	6	4	10	8	8	16

TABLE 28.

Blyth Clinic.

1946.

				1945			1946		
				<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
1.	Under treatment at beginning of year	....	....	44	59	103	21	58	79
2.	Returned for treatment after having ceased to attend during previous year	....	....	—	7	7	—	5	5
3.	Dealt with for the first time :—								
	Syphilis	....	....	8	15	23	13	14	27
	Soft Chancre	....	....	1	—	1	3	—	3
	Gonorrhoea	....	....	21	11	32	41	19	60
	Non-venereal & undiagnosed conditions	....	....	47	48	95	70	31	101
				—77	—74	—151	—127	—64	—191
4.	Number of cases dealt with for the first time known to have received treatment at other centres	....	....	49	16	65	52	12	64
5.	Discharged after completion of treatment	....	....	47	64	111	68	42	110
6.	Ceased to attend before completion of treatment	....	....	3	13	16	2	10	12
7.	Number of cases which ceased to attend after completion of treatment but before final tests of cure	....	....	4	10	14	5	1	6
8.	Transferred to other Centres, etc			95	11	106	89	5	94
9.	Under treatment or observation at end of year	....	....	21	58	79	36	81	117
10.	Total number of attendances	....		914	1,424	2,338	860	1,156	2,016
11.	Number of Congenital Syphilis (included in item 3 above)	....		1	2	3	1	—	1

TABLE 29.

*Preston Hospital,
North Shields.*

				1945	1946
Number of cases dealt with for the first time :—					
	Syphilis	....	....	9	8
	Soft Chancre	....	....	—	1
	Gonorrhoea	....	....	7	30
	Non-Venereal and undiagnosed conditions	....		20	25
				36	64
Total number of attendances				832	1,481

TABLE 30.

MENTALLY DEFECTIVES UNDER GUARDIANSHIP.

Number of cases at 1st January, 1946	....	....	....	112
Number of New Cases during the year	....	....	....	20
Number of Cases removed from Guardianship, admitted to Institutions or died during the year	....	....	....	3
Number of Cases at 31st December, 1946	....	....	....	129
Number of Visits made by Health Visitors during the year				476